



Evaluation of the Maryland Health Care Commission Hospital and Nursing Home Performance Evaluation Guides

Final Report

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EXECUTIVE SUMMARY

Over the past few years, the Maryland Health Care Commission (MHCC) has undertaken several public reporting initiatives to assist the general public in making informed health care decisions. The Maryland General Assembly authorized the MHCC to produce several state-sponsored online health care reports, including the Maryland Hospital and Nursing Home Performance Evaluation Guides, in January 2002 and August 2001, respectively.

Since the Guides were released, feedback has been primarily anecdotal. In its efforts to improve quality performance measurement and informed, value-based decision making in health care, as well as to demonstrate accountability to Maryland residents, the MHCC sought to more systematically evaluate the utility of these Guides. The MHCC contracted with The Lewin Group to assist it in evaluating the Guides. Specifically, the purpose of the evaluation was to:

- Understand users' usage, preferences and understanding of the Guides,
- Assess the extent to which users trust the information,
- Suggest improvements to the Guides, and
- Recommend outreach strategies to increase utilization of the Guides.

Under the guidance of the MHCC, The Lewin Group and its subcontractors at The SPRY Foundation conducted a series of in-depth, one-on-one interviews with 52 consumers and health professionals. Respondents included individuals from three target populations: 1) Maryland residents (32); 2) physicians – emergency department and primary care physicians (12); and 3) hospital-based area discharge planners (8). The interviews were moderated in real-time using computers, enabling interviewers to ground the responses and obtain rich qualitative data pertaining to usage, understanding, and preferences. In addition to the use of structured questions, each interview involved pre-designed sequences to assess how the user found information they were instructed to locate, to identify impasses and function sequences, and to assess how the user approached the interface and the considerations the user has when viewing performance data and making health care decisions.

This report summarizes the findings and recommendations from the participant interviews, as well as recommendations of the project team based on this study and prior experience with performance data and Web site design.

Key Findings

Overall

Findings from the interviews affirmed that citizens value information that can assist them in making informed health care decisions. Health professionals and consumers responded very favorably to both the Hospital and Nursing Home Performance Guides (the Guides). Overall, respondents thought the Guides contained comprehensive and trustworthy information, although some voiced concerns about how current the data are and their sensitivity to case-mix. Respondents acknowledged that the Guides supplement other resources in making health decisions and felt the Guides offered efficient, individualized research. They especially valued the educational components. This research suggests that the Guides may influence health professionals and consumers in making health care decisions in a variety of ways. Most

respondents found the Guides to be useful and would recommend them to peers and access the Guides again in the future.

Most consumers had little to no experience using comparative data to inform health care decisions. In addition, the majority of respondents across all target groups had no experience using quality indicators to evaluate the performance of health care facilities. In testing the Guides, respondents had difficulty comprehending and interpreting utilization and quality indicator data. Consumers, in particular, did not instinctively associate the data as indicators of performance. All target groups desired a rationale for the chosen quality indicators. They recommended having a clearer rating system and identifying performance goals. Both health professionals and consumers desired information about facility characteristics to be expanded and for other non-clinical aspects of quality to be included in the Guides.

Interview findings suggest that language level and display are particularly important to consider in making the Guides useful, particularly for consumers. All target groups perceived the terminology to be geared toward professionals and offered suggestions to enhance the Guides for lay persons. Respondents liked the overall design of the Guides. They had some difficulty navigating the Guides and consistently reported a need for them to be more understandable and user-friendly for consumers and for the content and displays to be more appropriately tailored to the different audiences of health providers and consumers.

This research also demonstrated that usability testing was beneficial for improving users' understanding of and access to information. The testing revealed that important information on the Guides was overlooked, but with minor refinements, would be more apparent to users. In addition, having a moderator interact with users to assist them with accessing certain information resulted in users feeling empowered and highly interested in comparative health care performance and revisiting the MHCC Web site and Guides again in the future.

Hospital Guide

Of the 28 respondents who assessed the Hospital Guide, the majority had never visited the MHCC Web site and were unfamiliar with the Hospital Guide prior to the study. Physicians reported relying on their personal experiences and the perceptions of their colleagues and patients for information about the quality of hospitals in Maryland. Consumers reported their most trusted resources for information about the quality of hospitals in their community to be health providers, family, and friends.

Few consumers had ever used information to compare hospital quality before and much of the information presented in the Guide was new to these respondents. Most primary care physicians, but almost no emergency department physicians, had used comparative health information in the past. The most common reporting tools that primary care physicians have used include HealthGrades and those provided by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

In general, physicians and consumers responded favorably to the Hospital Guide and thought it was fairly comprehensive. Nearly all of the respondents reported that they would visit the site again in the future and would recommend the site to others. They appreciated having a single, comprehensive site to search for information about multiple providers in their community as

well as about other health care resources. Respondents found certain features to be particularly useful. Consumers liked the ability to search for hospital facilities in the state by geography and by name. They especially liked the educational information on the site, such as the Consumer Checklist of factors to consider when choosing a hospital. Physicians favored the quality measures. The least useful part of the site was the Letter from the Chairmen.

According to both consumers and physicians, the utilization information was too complex for the general patient population. Data are displayed by Diagnosis-Related Groups (DRGs), a term unfamiliar to most consumers as it is used for provider billing purposes. Each DRG is associated with a medical condition identified by its clinical term, rather than more ordinary terminology that non-clinicians would understand. In addition, the rating system used to compare hospitals across the state was confusing to respondents. The half-filled circle rating, in particular, was interpreted differently by different respondents.

Although both respondent types considered the information on the site to be unbiased, physicians questioned the utilization and quality data more than consumers. Despite descriptions of data sources and analysis methods in the section of the site called “Technical Information”, physicians requested more detailed information about how the raw data were collected, they questioned the risk-adjustment methodology, they were interested in more evidence behind the choice of quality measures, and would value tests of statistical significance when comparing hospitals to each other. In addition, several physicians questioned the credibility of using length of stay and readmission rates as indicators of quality. They were also concerned that consumers would misinterpret quality information and mistake high quality institutions for poorer performers based on some of the individual metrics in this Guide rather than a fuller picture of hospitals’ specialty areas and patient populations. However, physicians consistently reported that they would advise their patients to use the Guide as a resource to assess hospital performance.

When questioned about what information was missing from the site that would further achieve the site’s stated purpose, consumers responded by requesting more detail on non-clinical aspects of hospital quality, such as patient satisfaction data, contact and other descriptive information on admitting physicians and nurses on staff at hospitals, additional information on facility characteristics such as specific departments and research efforts, and data on costs and payers, and environmental factors. Physicians, too, felt that additional information on facility characteristics would be useful. In addition, they requested expanded quality measures, nurse staffing data, and insurance information.

While respondents liked the design of the site overall, they were not able to navigate the site as easily as expected. Most of their comments related to the labeling of buttons and graphics, scrolling, and the balance of text with graphics. Overall, respondents recommended replacing clinical jargon with more understandable terms for the lay person.

Consumers consistently reported that they would use the site to inform their decision making about a hospital facility. In anticipation of a hospitalization for themselves or their loved ones, consumers would use the Guide as a tool to collect background information about available hospitals. The information would supplement the information that they receive from their physician or other health care provider. Consumers acknowledged that they are often not faced with a choice of hospitals in the event that they seek hospital care. However, if this was the case, they would consider using the Guide as an educational resource.

Both primary and emergency department physicians were less certain than consumers that they would use the Guide to help them make decisions. However, they consistently reported that they would advise their patients to use the Guide as a resource to assess hospital performance. In fact, the few respondents who had experience using the Guide prior to the study were predominantly physicians who used it to compare the hospitals with which they were affiliated to other hospitals in the community as well as for patient education.

Nursing Home Guide

Of the 24 respondents who assessed the Nursing Home Guide, the majority had never visited the MHCC Web site and were unfamiliar with the Nursing Home Guide prior to the study. In selecting a nursing home, consumers reported relying on word-of-mouth from friends and health providers, as well as visits to facilities to obtain comparative information. Discharge planners reported relying on reputation and institutional knowledge of area nursing homes, information from nursing home representatives, and individual observation at open-houses.

The majority of consumers had never used performance data to compare nursing homes and much of the information presented in the Guide was new to them, including educational resources. In contrast, several of the discharge planners had experience using nursing home reporting tools that contained limited information about bed size, available services, and survey results. However, in general, discharge planners had no experience using quality indicators to evaluate the performance of nursing homes.

Both consumers and discharge planners responded very favorably to the Guide. Nearly all respondents would recommend the Guide to a friend (consumers) or colleague (discharge planners) and would access the Guide again in the future. They liked that it was fairly comprehensive, allowing “one-stop shopping” for useful information, and that they could perform individualized research. Respondents found certain features to be particularly helpful, such as the consumer checklist to choosing a nursing home, facility and resident characteristics, and basic survey results. Discharge planners especially liked the “advanced search” feature and made suggestions to make it more useful.

Although respondents felt that the quality indicators and deficiency information were important to include in the Guide, both user groups had much difficulty interpreting the data. Consumers, especially, did not instinctively associate existing data as indicators of performance and the notion that some conditions may be preventable with proper care. The quality indicators categorical composite chart was too complex and often misinterpreted by respondents. The quality indicators state graph was not understandable and did not suffice for users’ desire to simultaneously compare indicators across multiple nursing homes. In general, both user groups desired additional information pertaining to non-clinical components of quality. Respondents wanted information regarding staffing and cost to be included in the Guide and information pertaining to available services and deficiencies to be expanded.

Keeping the Guide current was associated with the overall usefulness of the Guide and relative usefulness to other sources. Both discharge planners and consumers voiced concerns about the currency of the data and consumers were confused about reporting cycles, particularly the variability of survey reporting. In comparison to CMS’ Nursing Home Compare, discharge

planners perceived the MHCC Guide to be more comprehensive but not as current. In addition, respondents thought the Guide would be more useful if trend data were included.

Users liked the overall design of the Guide and offered several recommendations to increase the navigability and simplify the language of main headers and quality indicators. Although discharge planners found the advanced search option to be useful, they had much difficulty locating the feature. Both user groups liked the printer-friendly version featured on the site because it combined facility and resident characteristics, quality indicators and deficiency results in one place.

Overall, respondents trusted the Guide as an additional resource to inform their decisions. Consumers would mostly use the Guide at the time of placement to help narrow their search. They perceive the Guide to be more valuable for informing pre-admission searching and education, and less so for monitoring care being provided. Discharge planners' use of the Guide varied. Some would perform an initial search to narrow down the list to facilities that offered needed services and advise patients and their families to access the Guide for further information; some would simply print out the Consumer Checklist tool; and others would include information about the Guide in patients' discharge packets. Nearly all discharge planners reported they would use the Guide to locate potential facilities for patients seeking placement outside their traditional referral area.

Overall Recommendations

Based on interview findings and prior experience with health care performance data and Web site design, the project team offers several recommendations to improve the usefulness, understanding and navigability of the Guides. Recommendations are classified by: 1) modifications related to the organization and functionality of the sites, and 2) recommended information to include, exclude or expand. Recommendations unique to the Hospital and Nursing Home Guides as well as examples of how some of the issues have been addressed by other organizations maintaining Web sites with comparative health information can be found in the body of the report. *Appendix E* presents "quick fixes".

Modifications to Organization and Functionality

- Modify the sites by building in layers of information to allow both simplified reporting and drill-down options for more technical users. This may prevent consumers from feeling overwhelmed or intimidated by too much detail and satisfy health professionals, particularly physicians, who desire more technical information, such as tests of statistical significance when comparing hospitals. Modifying the sites by building layers rather than constructing separate portals is more feasible and easier to update. It is also responsive to respondents' desire to view data both as composite and individual measures.
- Offer a site map for each Guide to facilitate users' navigability. Respondents consistently lost their place during searches and had some difficulty locating information in various sections of the Guides (a proposed site map is located in *Appendix F*). Similarly, consider building capacity for an internal search engine.
- Prominently display when information was last updated and when the next update is expected. The interview results demonstrate that knowing how recent the data are is associated with

users' trust of the Guide. Because there are multiple data sources and reporting cycles within each Guide, it would be most helpful to display the dates with each section.

- Reduce the amount of text to increase readability and prevent unnecessary scrolling. Findings suggest that users want the sites to be quick-and-easy to use; health professionals do not have the time to read through all the material and consumers either do not have the time or do not have the patience. Consider using more simplified graphics and fewer words.
- Position the most popular links prominently and subcategorize other less popular items. For example, all respondents preferred that the Letter from the Chairman be removed as a fixed main heading. In addition, consider restructuring the home page so that there is a clear left-side menu. The top and bottom menus can be confusing for new users, since headings like Technical Information can mean many things to different users. Using a side menu will also help with the scrolling problem. Users often do not scroll down to see what is below their current viewing area.

Recommendations for Information to Include, Exclude or Expand

- Enhance readability by simplifying the terminology and explanatory language. This is recommended for the content on the Guides' home pages, sections, and headers. Several main headers were problematic for consumers, such as FAQs, Technical Information, Consumer Checklist, and Quality Indicators. In relation to quality indicators and measures, respondents thought the sections were too wordy and replete with clinical jargon. It is recommended to use pathological terminology with which consumers are familiar. Consumers typically understood the rollover (pop-up) descriptions and suggested that similar language be used to replace the "prevalence" and "incidence" phrasing.
- Provide performance goals for the quality indicators and measures to clarify expectations of standard care and facilitate comparisons. Respondents had difficulty understanding the quality indicators and measures and how to apply these data. Consumers did not intuitively link provider performance to the indicators. Most respondents wanted to know if the provider performed as expected, worse than expected, or better than expected.
- Simplify the rating system used to compare utilization and quality measures. In general, respondents were dissatisfied with the 70% half-filled circles and thought this was too broad and not useful. Although some respondents desired numerical rankings, interview findings suggest that these rankings may be misleading and misinterpreted. Many respondents thought that a star system (similar to HealthGrades) may be more intuitive for users and easier to interpret. Regardless of the chosen symbols, the sites need to be revised for consistency of usage and order of symbols (i.e., between legend and chart display, across sections).
- Expand clinical indicators and include non-clinical indicators of quality. Respondents reported that staffing was a main factor in assessing the quality of health care providers and desired more detailed information about staff qualifications, demographics, and interaction with patients/residents to appear in the Guides. Incorporating patient/resident satisfaction data will support the expansion of quality of care and quality of life factors. Respondents also desired a more comprehensive listing of services offered, and indication of "centers of excellence" or specialized services unique to facilities. For the Hospital Guide, in particular, respondents requested that quality measures address more medical conditions and a broader audience, e.g., mental health and substance abuse and pediatrics.

I. BACKGROUND AND RESEARCH OBJECTIVES

The Maryland Health Care Commission (MHCC) contracted with The Lewin Group to assess the Maryland Hospital and Nursing Home Performance Evaluation Guides (the Guides). These Guides are intended to assist users in their selection of hospitals or nursing homes based on vetted quality indicators, educate users about how data can support decision making, and provide users with additional resources to make informed decisions.

The purpose of the evaluation was to:

- Understand users' usage, preferences and understanding of the Guides,
- Assess the extent to which users trust the information,
- Make improvements to the Guides, and
- Recommend outreach strategies to increase utilization of the Guides.

The MHCC's decision to undertake this research supports broader efforts to improve quality, performance measurement, and value-based purchasing in health care. For hospitals and nursing homes, dissemination of performance evaluation information supports improvements in the delivery of care and demonstrates accountability to consumers. For consumers, comparative information helps them make informed decisions on where to seek quality health care.

There are a number of national and state initiatives to comparatively evaluate the quality of care of providers. National efforts include the Centers for Medicare and Medicaid Services' Nursing Home Compare and plans for a "Hospital Compare" Web site. Some states, such as Pennsylvania and California, have developed report cards. The challenges with reporting comparable data on quality include ensuring that data are valid and reliable and accurately compared and interpreted. The use of the Internet poses challenges for structuring the information so that it is easily accessible, understandable and pertinent to target audiences. Evaluations of Web products are critical to determining whether they are achieving expected goals.

The report is organized by the following sections:

- Section II: Methods and Approach – description of the recruitment approach, development of discussion guides used with interview participants, and participant interviews;
- Section III: Interview Findings – 1) overall findings from the interviews related to usage, understanding, usefulness and preferences, and usability; 2) Hospital Guide findings, including overall findings related to the Hospital Guide, findings for consumers, and findings for physicians; and 3) Nursing Home Guide findings, including overall findings related to the Nursing Home Guide, findings for consumers, and findings for discharge planners;
- Section IV: Recommendations for Improvements to the Evaluation Guides – presentation of overall recommendations as well as specific recommendations for the Hospital Guide and Nursing Home Guide;
- Section V: Recommendation for Outreach Strategies – presentation of recommendations on ways to inform other consumers and physicians about the Hospital Guide, ways to inform other consumers and discharge planners about the Nursing Home Guide, and strategies to enhance access to the Guides via the MHCC home page; and

- Section VI: Conclusions and Implications for the MHCC and Other Stakeholders.

II. METHODS AND APPROACH

The study design relied on a variety of qualitative methods, including qualitative analyses of in-depth one-on-one interviews with a total of 52 respondents. The following describes the overall study design, addressing the recruitment approach, development of the discussion guides, and interview process.

Recruitment

The MHCC requested a total of 52 individuals from three different target groups to participate in real-time, one-on-one, moderated interviews using computers. The target groups for the hospital performance evaluation guide included 12 physicians (6 emergency department physicians and 6 primary care physicians) and 16 consumers (Maryland residents); the target groups for the nursing home performance evaluation guide included 8 hospital-based discharge planners and 16 consumers (Maryland residents). The MHCC also requested individuals to be stratified by geographic representation (i.e., Baltimore metropolitan area and D.C. metropolitan area) and the recruitment design to factor minority representation.

The project team discussed a proposed recruitment approach with MHCC and members of both its Hospital and Nursing Home Report Card Steering Committees. In addition to the initial strata, the Lewin team recommended that the recruitment design account for individuals' experience with the online guide (i.e., previous and new users). Having input from previous users provided information from individuals who have actually had experience with the Guides that can speak to the practicality and usefulness of the Guides given their situation.

Members of the MHCC Hospital and Nursing Home Report Card Steering Committees identified several additional recruitment sources to achieve greater socioeconomic representation. Based on their feedback, The Lewin Group engaged existing MHCC and The Lewin Group contacts at local associations and organizations to identify and recruit a subset of participants. The Lewin Group also contacted newly identified health professionals at area hospitals, and placed announcements with selected senior centers, health-oriented listservs, and nearly 30 other local community organizations to recruit consumer participants. See *Appendix A* for a complete list of recruitment sources. In addition, the team developed a pop-up window on MHCC's Web site as a mechanism to identify interviewees who have had experience using the Guides. The pop-up box displayed information regarding the evaluation and allowed interested users to sign up to participate in an interview. The pop-up box was active for a three-week period.

The project team developed a general script for all three participant groups with some differences specific to each target group to account for the different uses of the Guides. A copy of the recruitment script can be found in *Appendix B*. While we originally anticipated screening candidates based on a variety of factors, we decided to remove these questions from the script and ask them of respondents once they agreed to participate in the study. In addition to gathering information on demographic characteristics such as age, race, residence/practice location, and gender, we collected information on:

- Consumers (Hospital Guide) – candidate or family member with a hospital stay in the recent past or who presented in the Emergency Department in the recent past;
- Consumers (Nursing Home Guide) – high functioning, cognitively intact older adults residing in the home and community, candidate with a nursing facility stay in the recent past or informal caregivers;
- Physician – patient population base, affiliation with multiple hospitals, and duration of current position; and
- Discharge Planner – duration of current position, currently staffed at a hospital-based skilled nursing facility, and having additional responsibilities with home health agencies, hospice, and long term care.

The ability to assess the Guides for linguistic appropriateness was limited due to the fact that the Guides are only available in English and the recruitment pool was therefore restricted to English-speaking individuals. However, relevant information related to cultural aspects that surfaced from the interviews is included in the key findings and recommendations.

In addition to questions that ascertained whether the candidate met the selection criteria, the script covered: 1) the reason for contacting the candidate; 2) the purpose of the interview; 3) the role and responsibilities of the participant, including expected time commitment; 4) the intended benefit of participating in the interview, including monetary and non-monetary benefits; and 5) the candidate's potential availability and preference of interview location.

Beginning October 2003, the 52 participants were recruited over a three-month period for this evaluation. A profile of interview respondents, including recruitment source, demographic and other characteristics can be found in *Appendix C*.

Each participant was mailed an interview packet prior to their interview which included logistical information and the URL address to access the online Guide. Fewer than half of the participants searched the online Guides prior to the interview. Each respondent was offered a stipend as an incentive to participate. The level of payment varied by participant group.

Development of Discussion Guides

Three distinct discussion guides were designed to be used for structured interviews with each target group: 1) physicians, 2) discharge planners and 3) consumers. A copy of each guide can be found in *Appendix D*. The physician discussion guide contained several questions tailored to the type of physician (i.e., emergency department and primary care physicians). Each guide included a subset of questions for previous users.

The discussion guides were structured around five topical modules:

- Usage : *to assess how, when and why the respondent may use the Guide*
- Understanding: *to assess how the respondent understands and interprets the purpose, content, and sources of information contained in the Guide*
- Usefulness and Preferences: *to assess the credibility and usefulness of the Guide for respondents in making health care decisions and users' preferences about what information to include, exclude or expand*

- *Usability: to assess users' navigability of the site, including logic, design and functionality*
- *Outreach Strategies: to understand potential ways users would learn about the Guide in order to enhance access to and increase utilization of the Guide.*

Although the study sample size (n=52) limits meaningful statistical analysis, the discussion guides were designed to elicit rich qualitative data that were analyzed for emergent themes about user preferences and recommendations. The design involved a set of standard structured questions as well as pre-designed usability tests to assess comprehension, usability and functionality. The discussion guides were also designed to take into account the different circumstances for respondents in seeking comparative information. A moderator administered the guides.

Drafts of the discussion guides were presented to the Hospital and Nursing Home Report Card Steering Committees and refined based on feedback from the members. The guides were then pilot tested with a respondent from each target group. The discussion guides were modified again based on test results and subsequent input from the Commission. For example, questions regarding composite versus individual measures and comparative displays (stars versus circles) were added. Also, the discharge planner discussion guide was modified to assess knowledge of the CMS Nursing Home Compare and the consumer discussion guide was modified to include a question about trust.

Participant Interviews

Moderators from The Lewin Group and its subcontractor, the SPRY Foundation, conducted 52 one-on-one, semi-structured interviews at designated interview facilities from November 2003 to February 2004. The interview facilities were equipped with an Internet connection; ample space for the respondent, moderator and a recorder; and one-way observational mirrors. A set of the consumer interviews associated with the Nursing Home Guide was held at a senior center located in a more rural area of Maryland. In addition, four physician interviews and one discharge planner interview were conducted at the provider's site.

Moderators used a combination of methods and techniques commonly used in facilitated evaluations in order to adequately assess consumer and provider usage, preferences and understanding of the Guides, potential areas of improvement, and outreach strategies. The moderators used both close- and open-ended questions. Open-ended questions were grounded with examples to ensure that the respondent understood the questions and delivered a meaningful response for our analysis.

In addition to the use of structured questions, each interview involved pre-designed sequences based on the following techniques: 1) "scavenger-hunt" type tests to see how users could find information they were instructed to locate; 2) "application" type tests that required users to perform some task that was described to them and in which each step the user took was scrutinized to identify impasses and function sequences; and 3) "thinking aloud protocols" in which participants were given a scenario of tasks to perform and asked to explain what they were thinking about while trying to complete the tasks. The "thinking aloud protocol" gives a better understanding of how the user approaches the interface and what considerations the user has in mind. With this exercise, it could be determined when the user expressed a certain

sequence of steps to accomplish their task and if this was different from what they expected. This gives a sense of the complexity of the interface and how intuitive or convoluted it might be.

In addition to notes recorded by the project team during an interview, an audiotape and written transcript was produced for each interview. The project team used recorded notes and referred back to the written transcripts in abstracting information from the interviews to synthesize key findings and recommendations. Observations during debrief discussions with moderators and MHCC staff after a subset of interviews were addressed in the draft report. Comments on the draft report from MHCC and the Hospital and Nursing Home Report Card Steering Committees were incorporated into the final report.

III. FINDINGS FROM THE INTERVIEWS

The Lewin Group project team analyzed responses from a total of 52, one-on-one interviews with Maryland consumers and health care professionals. Lewin, along with its subcontractors at the SPRY Foundation, interviewed 32 consumers, 12 physicians and eight discharge planners regarding their preferences and recommendations related to usage, usefulness, understanding, and navigability of the Guides. The following summarizes the key findings from the participant interviews.

This section is organized by presenting overall findings followed by findings specific to the Hospital Guide, overall and by respondent type (i.e., consumer and physician), and findings specific to the Nursing Home Guide, overall and by respondent type (i.e., consumer and discharge planner). Resultant recommendations are described in the subsequent section.

Overall

Health professionals and consumers responded very favorably to both the Hospital and Nursing Home Performance Guides (the Guides). Overall, respondents thought the Guides contained comprehensive and trustworthy information, although some voiced concerns about the currency of the data and their sensitivity to case-mix. Respondents acknowledged that the Guides supplement other resources in making health decisions and felt that the Guides offered efficient, individualized research. They especially valued the educational components. Most respondents found the Guides to be useful and would recommend them to peers and access the Guides again in the future.

Most consumers had little to no experience using comparative data to inform health care decisions. In addition, the majority of respondents across all target groups had no experience using quality indicators to evaluate the performance of health care facilities. In testing the Guides, respondents had difficulty comprehending and interpreting utilization and quality indicator data. Consumers, in particular, did not instinctively associate the data as indicators of performance. All target groups desired a rationale for the chosen quality indicators. They recommended having a clearer rating system and identifying performance goals. Both health professionals and consumers desired information about facility characteristics to be expanded and for other non-clinical aspects of quality to be included in the Guides.

Respondents liked the overall design of the Guides. All target groups perceived the terminology to be geared toward professionals and offered suggestions to enhance the Guides for lay persons. They had some difficulty navigating the Guides and consistently reported a need for them to be more understandable and user-friendly for consumers and for the content and displays to be more appropriately tailored to the different audiences of health providers and consumers.

Hospital Guide

Of the 28 respondents who assessed the Hospital Guide, the majority had never visited the MHCC Web site and were unfamiliar with the Hospital Guide prior to the study. Out of the minority of respondents who had used the Guide before, most were physicians who used the Guide to compare the hospitals with which they were affiliated to other hospitals in the community as well as for patient education. Most physician respondents who had never used the Guide before relied on their personal experiences and the perceptions of their colleagues and patients for information about the quality of hospitals in Maryland. Consumers report their most trusted resources for information about the quality of hospitals in their community to be health providers, family, and friends.

Few consumers had ever used information to compare hospital quality before and much of the information presented in the Guide was new to these respondents. Most primary care physicians but almost no emergency department physicians had used comparative health information in the past.

In general, physicians and consumers responded favorably to the Hospital Guide and thought it was a fairly comprehensive Web site of information about Maryland hospitals. Nearly all of the respondents reported that they would visit the site again in the future and would recommend the site to family members, friends or colleagues. They appreciated having a single, comprehensive site to search for information about multiple providers in their community as well as about other health care resources. Respondents found certain features to be particularly useful. Consumers liked the ability to search for hospital facilities in the state by geography and by name, as well as the educational information, such as the Consumer Checklist of factors to consider when choosing a hospital. Physicians favored the quality measures. The least useful part of the site was the Letter from the Chairmen. Both respondents types considered the information on the site to be unbiased.

According to both consumers and physicians, the utilization information was too complex for the general patient population. Data are displayed by Diagnosis-Related Groups (DRGs), a term unfamiliar to most consumers as it is used for provider billing purposes. Each DRG is associated with a medical condition, identified by its clinical term rather than more ordinary terminology that non-clinicians would understand. In addition, the rating system used to compare hospitals across the state was confusing to respondents. The half-filled circle rating, in particular, meant different things to different respondents.

Physicians questioned the utilization and quality data more than consumers. Despite descriptions of data sources and analysis methods in the section of the site called Technical Information, they requested more detailed information about how the raw data were collected, questioned the risk-adjustment methodology, were interested in more evidence behind the choice of quality measures, and would value tests of statistical significance when comparing hospitals to each other. In addition, several physicians questioned the credibility of using length of stay and

readmission rates as indicators of quality. They were also concerned that consumers would misinterpret quality information and mistake high quality institutions for poorer performers based on some of the individual metrics in this Guide rather than a fuller picture of hospitals' specialty areas and patient populations. However, physicians consistently reported that they would advise their patients to use the Guide as a resource to assess hospital performance.

While respondents liked the design of the site overall, they were not able to navigate the site as easily as expected. Most of their comments related to the labeling of buttons and graphics, scrolling, and the balance of text with graphics.

When questioned about what was missing from the site that would further achieve the site's stated purpose, consumers responded by requesting more detail on non-clinical aspects of hospital quality, such as patient satisfaction data, contact and other descriptive information on admitting physicians and nurses on staff at hospitals, additional information on facility characteristics such as specific departments and research efforts, and data on costs and payers, and environmental factors. Physicians, too, felt that additional information on facility characteristics would be useful. In addition, they requested expanded quality measures, nurse staffing data, and insurance information.

Consumers consistently reported that they would use the site to inform their decision making about a hospital facility. In anticipation of a hospitalization for themselves or their loved ones, consumers would use the Guide as a tool to collect background information about available hospitals. The information would complement the information that they receive from their physician or other health care provider. Consumers acknowledged that they are often not faced with a choice of hospitals in the event that they seek hospital care. However, if this was the case, they would consider using the Guide as an educational resource.

Both primary care and emergency department physicians were less certain than consumers that they would use the Guide to help them make decisions. There was some concern on the part of physicians about how the information from the Guide may be potentially used by hospitals to change practice patterns. The main concern was that changes made to improve results that are publicly reported in the Guide may but not necessarily produce better outcomes for patients, and in some instances, may actually produce negative outcomes (e.g., over-prescribing antibiotics).

In the following subsections, these and other findings are described in more detail by respondent type and four categories of inquiry: usage, understanding, usefulness and preferences and usability. Exhibits 1 through 3 include quantitative responses from interviews.

Exhibit 1: Findings on Usage of Hospital Guide

Topic Area	Hospital Guide		
	Consumers (n=16)	Physicians (n=12)	
		Primary Care (n=6)	Emergency Dept (n=6)
Usage			
Had visited the general MHCC web site before this study	2	4	1
Had heard of the Hospital Guide before this study	1	3	2
Had used the Hospital Guide before this study	0	2	1
Had used information to compare hospital quality in the past	2	4	0
Would access the Hospital Guide in the future	14	6	6
Would recommend the Hospital Guide to a friend or colleague	16	4	6
Would advise their patients to use the Hospital Guide		5	3
Would advise their patients to use the Hospital Guide as a tool to evaluate hospital performance			
Definitely		2	0
Probably		4	5
Not likely		0	1
No		0	0

Exhibit 2: Findings on Usefulness and Preferences of Hospital Guide

Topic Area	Hospital Guide		
	Consumers (n=16)	Physicians (n=12)	
		Primary Care (n=6)	Emergency Dept (n=6)
Usefulness and Preferences			
Average Rating of Usefulness (on a Scale of 1 [least useful] to 5 [most useful])	3.9	3.4	2.8
Reported trusting the information in the Hospital Guide:			
<i>Very much</i>	12	2	3
<i>Somewhat</i>	2	2	2
<i>Not at all</i>	0	0	1
Would use the quality information in the Hospital Guide to make patient referral decisions (<i>Primary Care Physicians</i>)		3	
Thought that the quality information in the Hospital Guide can be used to influence how care is delivered in a hospital's ED (<i>ED Physicians</i>)			4

Exhibit 3: Findings on Usability of Hospital Guide

Topic Area	Hospital Guide		
	Consumers (n=16)	Physicians (n=12)	
		Primary Care (n=6)	Emergency Dept (n=6)
Usability			
Thought that locating information on the site was:			
<i>Very difficult</i>	0	1	0
<i>Somewhat difficult</i>	2	1	2
<i>Somewhat easy</i>	8	3	2
<i>Very easy</i>	1	1	2
Thought the Hospital Guide had a:			
<i>Good Design</i>	9	3	2
<i>Fair Design</i>	6	3	4
<i>Poor Design</i>	0	0	0

Findings for Consumers

Usage

- **Consumer respondents reported having little or no experience using hospital performance data, relying instead on their health care providers, family and friends to support their health care decision making.** Consumers most trusted sources of information about the quality of hospitals in their community were their doctors, nurses or other health care providers as well as word-of-mouth from family and friends. Few respondents had ever used information to compare hospital quality before and most had never heard of or used the MHCC Hospital Guide. A few consumers reported using the Internet to search for information on individual hospitals as well as reading publications such as the newspapers, magazine articles, and brochures about specific health care organizations. Most of the comparative information in the Hospital Guide was new to consumer respondents.
- **If given the opportunity to choose a hospital for needed treatment, consumers would use the Hospital Guide in the future to assist in their health care decision making.** Most consumers reported that they would use the Hospital Guide to research hospitals in anticipation of a hospitalization of themselves or loved ones. Consumers acknowledged, however, that they do not often have the choice of what hospital they access; this decision may be dictated by geography, physician or health plan. In addition, they noted that they would continue to seek advice from their health care professionals. One consumer saw the Guide as particularly useful in times of crisis because it was perceived as a fast way to collect information on a variety of facilities.

I think a lot of times we don't have a choice so much in the hospital where to go...so this is a way of checking it out and trying to gain some information that it's a good facility. If you find that it's not, then you could try to make a change.

- **Consumers valued the Hospital Guide for general education about accessing health care resources.** Consumers reported that they would use the Guide if they needed background information on Maryland hospitals, a particular medical condition, or general health care resources in the community. These consumers found both the Resources section of the site and the list of things to consider when accessing hospital care (Consumer Checklist) as particularly useful.

Understanding

- **While many consumers reported the Guide was comprehensive and a supplement to other resources to support their health care decision making, a subset did not fully understand the source of comparative health information.** Consumers understood that the site provided information that allowed them to compare hospitals in Maryland. However, several consumers were unclear about the data source(s) used to develop the site. Both graphical and tabular data displays did not include data source information. In addition, even after reading the description of the primary data source in Technical Information, consumers required further explanation of the “HSCRC confidential data set.” One consumer reported that the Guide relied on physician survey data. This lack of understanding was not a barrier to use but a potential barrier to data interpretation.
- **Clinical jargon was intimidating, leading a few consumers to conclude that some sections of the site were advanced and better suited for health professionals.** Several consumers were not familiar with the terms on the site referring to medical conditions. While the search menu appeared to use more familiar terminology than the search results, which were organized by DRG (groupings that were unfamiliar to the average consumer), several consumers would have preferred to search by terms or conditions with which they were more familiar. For example, a couple of consumers wanted to search by procedures, e.g., hysterectomy or knee or hip replacement, but were unable to identify a condition that was associated with each procedure. Additionally, several quality measures were based on standards of practice unfamiliar to non-clinicians. Facility characteristics, on the other hand, were almost universally understood by consumers.
- **Utilization and quality benchmarks were confusing and misinterpreted.** Some consumers did not understand the terms “utilization,” “risk-adjusted admissions,” and “risk-adjusted length of stay,” and had a difficult time understanding how to apply both utilization and quality measures to make decisions. For example, one consumer thought that length of stay indicated the number of days within which a hospital should treat a patient for a particular condition, not the number of days patients with that condition actually spent in the hospital, on average. Another consumer interpreted the rating for a quality indicator as the percent of time a particular hospital was capable of performing the procedure rather than the frequency that quality indicator was performed in the hospital. Definitions of these terms were helpful to consumers in order to interpret their meaning, however, it is unclear whether they would have read the posted definitions without moderators prompting them to do so.
- **Consumers neither understood nor liked the rating system used to compare hospitals by medical condition or quality measure.** The three different circles indicating how a hospital rates relative to its peers were misleading for several reasons: 1) the half-filled circle was not explained fully and represented an unusual range (some consumers assumed that half-filled meant that this hospital rated about average or at the median relative to other

hospitals in Maryland); 2) the circle system was inconsistent with the one used by the well-known Consumer Reports; 3) consumers wanted to be able to conclude that a hospital was either a good or poor performer. They could not tell whether the black filled circle meant that the hospital rated well or poor. One consumer cautioned that rating hospitals as good or poor performers was not as important or meaningful as how they compare to one another, e.g., above average, below average.

I ignored this [circle rating system] to begin with, so I had to go back up. And I was not sure whether the dark circle was going to be good or bad.I would rather a star thing [rating system].

I think people put too much of an emphasis like good-bad. And that's what Consumer Reports has. It's above average, below average andthat's really not the point here. I would suggest coming up with some other kind of way of designating this. ...These icons are just too familiar for other kinds of things.

Usefulness and Preferences

- **Consumers gave the Hospital Guide high marks on its usefulness for general information and to better equip them to make decisions.** On a scale of one to five, five being the most useful, consumer respondents rated the site a four on average. Almost all consumers would use the Guide in the future and all consumers would recommend the Guide to friends. Those consumers who had the opportunity to review the Consumer Checklist posted on the site found this resource most useful. One consumer described this resource as a tool that could help ease patient concerns or apprehension about seeking hospital care. Other consumers favored the facility characteristics which provided important, general information on hospitals as well as the medical condition and quality searches which facilitated hospital comparisons. The Letter from the Chairmen was considered to be the least useful part of the Hospital Guide, a page that users would review once but never again.

Yes. I don't say that lightly. I don't find an awful lot of stuff online that's all that useful, but this looks like it could be useful.

This [the consumer checklist] is good. I like this. This is good because when you're nervous about a procedure coming up...I take notes now when I go to the doctor because when I get in there, I forget to ask him what I really want to ask him.

- **The site was perceived as unbiased and informative and a “one-stop shop” for information about hospitals in the community.** What made the site stand out from other resources, according to consumers, was that it compiled detailed, objective information about all hospitals in Maryland in one, accessible location to support health care decision making and provide general health information. Consumers reported that this resource saves time; it eliminates users' needs to search multiple sites for this information.

One thing that it offers is that there is a lot of information in one place. Otherwise you could be doing a lot of researching.

- **Consumers almost universally reported that they trusted the information on the site (at least somewhat) but offered suggestions for how to make the site more trustworthy.** Part of what made the site trustworthy to consumers was that it was developed by a credible, neutral party (i.e., MHCC). Some metrics were not considered to be credible by consumers. One

consumer did not find readmission rates to be a credible measure of hospital performance assuming that the metric did not consider readmissions to other area hospitals, which it does. Another felt that after hospitals had a chance to see how they compare to their peers, they may improve coding practices and documentation which may improve their performance on specific quality measures over time.

Additional evidence of how data on the site have been vetted, verified, and used by credible organizations or individuals would make the site more trustworthy to consumers. For example, a couple of consumers reported that they would like the Guide to reference research studies that support the selection of quality measures for pneumonia and heart failure.

- **When asked whether consumers would find composite measures of hospital quality related to treating a particular condition more useful than individual measures, the majority of consumers responding preferred the detailed individual measures.** One consumer preferred having access to both composite and individual measures.

I think I like having it [quality measures] broken out. It just gives you a better idea rather than having it lumped into one.

...I'm almost wondering if it would make sense if you did both. If you had the congestive heart failure up above and then you could go down into more detail if you wanted to.

- **Choosing hospitals has more to do with location, doctor's affiliation and insurance coverage than most utilization and quality factors.** We asked respondents what they hoped to find in a Guide comparing hospital quality. The most important factor to consumers was information about staff, including a list of doctors who practice at the facility, how long they have been practicing, and how to contact them. Other information of value to consumers included the location of the hospital and the services or specialties it offers, as well as information about hospital costs and insurance accepted.

Consumers did not discount the importance of utilization and quality factors. However, they appeared secondary in their decision making. These factors included patient satisfaction data, information on mortality rates, readmission rates, and medical errors, and facility accreditation.

- **Overall, consumers desired more detail on non-clinical aspects of quality as well as facility characteristics.** Consumers would find the site more useful if it contained additional information on a variety of non-clinical factors: physician characteristics (name, contact information, specialty, credentials), other staffing characteristics (physician/nurse to patient ratios), and patient satisfaction data. Specifically, consumers wanted to be able to contact physicians from information posted on the Hospital Guide. Consumers reported that they could get a better understanding of the quality of care at particular hospitals from satisfaction information about how well patients were treated. Several consumers preferred additional information on facility characteristics such as a contact person for the facility, descriptions of specific departments, information on research programs, environmental factors like cleanliness, food, room size, security, and parking, insurance information, and information about the cost of care.

Usability

- **On average, consumers found the site somewhat easy to navigate, however, Internet experience was perceived to be important.** Of the 16 consumers who evaluated the

Hospital Guide, most consumers had used the Internet before and nine respondents used the Internet to search for health information in the past. Some consumers felt that without their previous Internet experience it would have been much more difficult to use the site, although those few respondents with no Internet experience found the site somewhat easy to navigate. Major criticisms included that the site was not well-labeled in terms of when and how to click for more information. In some sections, the site required too much scrolling because the sections were too wordy.

- **Consumers often missed information contained on the site due to not knowing when to click or where to locate information.** From the home page, many consumers missed an important tool to assist them with using the site, i.e., Getting Started with the Hospital Guide. This tab was located at the bottom of the home page and consumers did not have clear instruction to scroll down to find it. Consumers also commented that in the absence of a site map, they did not know what information existed on the site and how to access it. There were several examples of consumer confusion about when and when not to click for more information:
 - Consumers tried to click on terms in the glossary but the terms were not hyperlinked;
 - Consumers tried to search by medical condition or quality indicator by double clicking on their selection but they did not advance;
 - Many consumers did not realize that they could click on the “H” symbol for a hospital comparison bar chart;
 - Several consumers did not know that the hospital circle rating symbol was hyperlinked for more explanation.
- **The multiple options to search for information about hospitals were utilized and well-liked, but modifications to the design and functionality of searches were recommended.** Unlike the Nursing Home Guide, the Hospital Guide facility search demands user interaction in one of three ways at the outset. Consumers found this facility search design to be very user-friendly. One suggestion to improve the output of the facility search was to indicate to the user how the output is sorted when multiple counties are selected.

A couple of respondents requested a search or alphabetized drop-down box for the medical condition search so that users could enter conditions of interest rather than scroll through the long list of conditions.

You know what would be nice here [medical condition search] ...if there was a search button or if I could just type in 'hysterectomy' or 'prostate cancer' ... instead of scanning down and seeing whether it was listed.

- **Most consumers preferred graphic display rather than viewing (and scrolling through) data displayed in tables.** Consumers consistently reported that they found the sideways bar graph comparing hospitals to be useful. The Utilization Information section of the site for each Maryland hospital, however, was hard to navigate given the amount of scrolling required to review all of the DRGs listed in the table.

I like to see the comparison [hospital comparison sideways bar graph] because this is very objective, telling you what the average, what the performance is and what the highest rated one is.

- **Consumers liked the design of the site.** Overall, consumers found the site to be welcoming. The use of the color blue was considered to be a cool and not intimidating; a couple of respondents thought it was too institutional. Some consumers commented that different colors could be used on the site to make certain text stand out. For example, they suggested alternate colors for headers and subheaders in the Facility Characteristics and Utilization Information sections of the site. In addition, a couple of consumers preferred black text on a white backgrounds or visa versa. The purpose of these comments was to provide more contrast on the site without being distracting. Consumers did not agree on whether posting photos of hospitals on the site would enhance or take away from or crowd the site.

It has a good 'look and feel.' It doesn't seem intimidating, which I think something like this could be for a consumer.

- **Labels for major sections of the site were not easily understood.** When asked by moderators, consumers had a difficult time locating sections of the site with information on data sources and how to contact MHCC with questions. According to consumers, sections with this information were not well-labeled or well-placed. A couple of consumers thought that the Technical Information section of the site, which includes information on data sources, was the place to go for information about the computer technology used to develop the site. In addition, several consumers sought out the FAQs section of the site before the Contact Us section for information about how to follow up with MHCC.

Findings for Physicians

Usage

- **There was a mixed response among PCPs about whether they would consult the Guide in making future patient referrals.** While the site was perceived to be informative, only three physicians interviewed would consider using the Guide to influence referral patterns. PCPs reported that they base their referral decisions primarily on personal experiences or the experiences of colleagues, hospital referral services, or hospital reputation. Other physicians added that geography and insurance may dictate referral decisions. A couple of physicians noted seeking out other sources of comparative information, e.g., JCAHO and Healthgrades.com, on occasion, as well as information about individual hospitals published in brochure and written media.

In general, patients sometimes like to go close to their home. The transportation is a big problem, so location is important...Nowadays, you cannot go to every hospital because HMOs and all, they are assigned to some hospitals, so you are not making that kind of decision on your own. It just depends on the hospital and insurances.

From my perspective, I don't know how helpful this would be for me. If I was a primary care physician in the community and I wanted to admit somebody for their heart failure or for their pneumonia, this very well may be helpful in the abstract, but the reality is that even primary care doctors in the community don't have privileges at hospitals A through Z. It just doesn't make a difference to me. There are very specific regulations under which patients can be transferred out of the emergency department and it usually isn't because I'm shopping for a better facility.

- **Physicians who held administrative positions in the past reported that the data in the Guide would be valuable in internal hospital quality assurance efforts.** In an administrative role, physicians could educate each other from information posted on the Guide. Emergency department physicians, in particular, noted that the Guide raised awareness of how their hospital performed relative to others. They could see themselves identifying areas of low performance within the emergency department to trigger discussion and potential improvement efforts. Availability of trend data would support physician monitoring of performance improvements.

However, a few physicians were concerned about using the information from the Guide to change practice patterns. The overarching concern was that changes made to improve publicly reported results on the Guide may but not necessarily produce better outcomes for patients, and in some instances, may actually produce negative outcomes. As reported by one emergency department physician:

*Like this issue here about giving antibiotics...that's the recommendation that you give the antibiotic **when it is needed**, you know, if you give an antibiotic **all of the time** then you are overusing the antibiotic and you are giving unnecessary antibiotic resistance, and so on...So if a hospital is showing 99% {in the Guide}, they probably are giving a lot more [antibiotics] than needed.*

- **The majority of physicians interviewed would advise patients to use the Hospital Guide as a tool to evaluate hospital performance.** PCPs reported plans to recommend the Guide to patients as an educational tool, particularly when they anticipated a planned inpatient stay, e.g., pregnancy, surgery, and had the time to conduct comparative research in advance. One physician remarked, however, that patients use the Guide only as a supplement to information physicians give them. With a few exceptions, physicians supported the information on the site as consistent with personal experience. They would recommend the guide to colleagues, as well, most likely to be used as a resource for their patients.

If a patient was sitting in my office and said to me, 'Gee, I have to have this surgery done, where would you recommend I have it done?' And I am debating between these two hospitals...I might say, 'You can always go look at this web site.'

Understanding

- **Physicians understood the intended purpose of the site as meeting both patients' and providers' information needs.** For patients, they reported the site's purpose was to educate them about how to select a hospital for themselves or their loved ones by objectively comparing hospitals according to how well they treat patients. For physicians, they see the site as providing quality of care information about hospitals in Maryland for select DRGs which raises awareness and discussion internal to hospitals. They also see the site as assisting them with patient education. A minority of physicians perceive the site as helpful in making referral decisions. Most physicians concluded that the site was more useful for their patients than for themselves.
- **In general, the terminology used on the site was perceived by physicians to be too complicated for many of their patients.** When evaluating the site, physicians had their patients in mind, trying to determine whether patients could comprehend information posted on the site. In several places on the site, they found the clinical information to be too complicated for patients and inconsistent with how the same information was represented

elsewhere. For example, utilization information that was specific to a particular hospital was listed by Diagnosis-Related Groups (DRG); patients were not familiar with this medical vocabulary. Some physicians did acknowledge that the medical condition search included some clinical terms that were simplified and easier for patients to understand, however, these terms were used inconsistently.

- **While most physicians valued the data presented on the site, they did not understand the circle rating system as a way to demonstrate hospital performance relative to other hospitals.** Usually physicians understood that the black circle meant that hospitals were among the top performers and a transparent circle meant that hospitals were among the worst performers. However, respondents' interpretations of the half-filled circle varied considerably. One physician suggested ranking hospitals instead.
- **Some physicians were confused by metrics or questioned the methods for calculating them.** Some physicians did not know how they should interpret volume data. They questioned whether the number of cases reported was a good or bad rating. A couple of physicians suggested an average measure of volume for comparison purposes. In addition, it was not readily apparent to physicians how risk-adjusted readmission were calculated. Physicians raised several questions. For example, "Does the statistic refer only to readmissions to the same hospital or any hospital in the state?" "What is the timeframe for readmissions?" "How are these cases identified?" Some but not all of these questions are answered in the Technical Information section of the site.

One physician noted inconsistencies related to the number of cases for a particular medical condition reported on different sections of the site. For example, pneumonia cases for a particular hospital in the Utilization Information section were not consistent with those in the quality measures section. This physician requested further information about why denominators were inconsistent.

Usefulness and Preferences

- **Physicians' perceptions of the usefulness of the site varied.** On a scale of one to five, with five being the most useful, physician respondents rated the site a three on average. Again, few physicians planned to use the site to make referral decisions. The sections of the site that they found most useful included the facility search for general information on individual hospitals and the ability to compare hospitals by medical condition or quality measure. The site could be more useful with additional data, e.g., quality indicators and a new, simplified system for rating hospitals relative to each other.

It should provide, and I think we have to believe that it does provide, the best data that we have for now.

- **Physicians perceived the information to be comprehensive and educational for patients.** According to physicians, the site offers educational information that supports patient decision making. A subset of physicians remarked about the Guide's comprehensiveness, noting how difficult it would be to gather this information on one's own. Physicians complimented MHCC for compiling objective data in one place for comparison purposes.
- **More work is needed to make the information on the site more trustworthy to physicians.** Physicians trust the information on the site moderately. Their concerns were around

maintaining the site in terms of updating existing data over time so that they are as current as possible and conducting quality assurance tasks to ensure that data are an accurate reflection of hospital experience. For example, one physician reported that the number of cases in the pneumonia report for the hospital where he works was low for a six month period.

Most physicians felt that quality reporting would be more accurate if information about hospital specializations and identifying “centers of excellence” were added. There was a particular degree of distrust among physicians when they viewed data on hospitals for which they held in high regard and these data showed poorer performance.

[Giving antibiotics in a timely fashion]. You go to the worst one, which is 71%- John Hopkins, which is one of the top hospitals in the country, you know. And the one with 99%-, you know people are running away from [this hospital].

One physician suggested reporting hospital service area or percentage of patients from local community versus outside of the community to provide more detail about patient population and reputation. Also, a couple of physicians noted the importance of providing users of the Hospital Guide with information about hospital-specific departments, service offerings and equipment, e.g., whether they are a trauma center and if so, what level, what types of intensive care services they offer, the extent to which they staff Intensivists in their Intensive Care Units, whether they offer cardiac or radiology services, etc. With a better understanding of the sophistication of services and equipment offered in hospitals, users can make more informed decisions about where to seek treatment.

Other aspects of health care quality perceived to be important to physicians included characteristics of physician and nursing staff including training, years of experience, specialties and sub-specialties and hospital-specific insurance information.

- **Many physicians had concerns about the validity and reliability of the data and did not necessarily recognize the quality measures as standards of care.** As is the case in national quality reporting discussions, physicians disagreed about whether volume and risk-adjusted readmissions and length of stay were reliable indicators of quality. Some found the information critical to assessing hospital performance, while other physicians described these items as indicators of patient health status and not hospital quality. Emergency department physicians, in particular, found the readmissions and length of stay indicators as misleading, noting that patients who are sicker tend to go to the better hospitals and so these hospitals end up with higher readmission rates because their patient populations are sicker.

If I am a cardiac patient and start in an average hospital that does not have all of the facilities and all of the services, I will probably go back to the better hospital after experience I know this is the best hospital for this condition...So if I have a problem I will go there and if I do again I'll go there again. So I don't think that this is a good criteria for giving the consumer the opinion that this hospital is better because it has lower readmission rates...I don't think that the readmission rate is a good criteria. If a hospital has really low readmission that means the patients are going somewhere else and they are not going back to that hospital and that does not mean that the patient is doing well or not.

This [LOS information] might be more useful for an insurance company than an emergency department physician.

In addition, one physician reported that the risk adjustment of measures was not sufficient to control for differences among hospital services and patient mix.

A few physicians found some of the specific quality measures to be misleading or inaccurate and felt that they should not be used by consumers as the basis for selecting hospitals. One physician did not trust indicators that are highly dependent on how well hospitals document their services. This physician puts more trust in indicators that reflect whether or not a test was completed and less trust in indicators that are influenced by high variability in hospital coding practices, e.g., giving instructions before leaving the hospital. Another physician reported that just because a hospital performs well on a particular quality indicator, other factors need to be considered, such as its other capabilities to treat patients with the specific condition, and its reputation. The same physician questioned whether hospitals have been made aware of the standards by which they are being evaluated and compared.

I think it's deceptive to the public, if the hospitals were not aware...of what their discharge instructions should include...for this to be sent out to the public.

One physician disagreed with the explanation that, "A delay of more than 8 hours before starting an antibiotic has been shown to increase *the risk of death*, especially in the elderly." To avoid misleading patients, this physician felt that the practice should be associated with increased morbidity risk as opposed to mortality risk.

When asked, physicians preferred both displays of quality data, represented as a composite and as individual measures. Without the detail, physicians were concerned that data would be misinterpreted and misused.

While consumers did not appear to desire further detail on comparative data, physicians noted their preference for additional statistics, such as tests of statistical significance. Physicians could better interpret the data on the site knowing whether differences among hospital ratings were statistically significant. One physician reported that criteria for inclusion of data on the site should be whether the results are statistically significant.

How good are the statistics? ...I think with physicians, you really have to get that out of the way, that the statistics are good.

- **Several primary care and emergency department physicians expressed desire to expand data on medical conditions and quality measures.** Two PCP suggested adding medical condition data specific to the pediatric population for both consumers and pediatricians in the community. They reported that parents search the Internet carefully for health information pertinent to the needs of their children and perceived that information on children younger than 18 years of age on the site would be very useful. A couple of PCPs were interested in hospital ambulatory surgery data, which is included in another MHCC product, to facilitate referrals. One emergency department physician preferred tabulations of admission data; in the opinion of this physician, indicators of quality in the emergency department related to how well patients are treated in the first hour of their stay. Other physicians were interested in additional measures of quality, e.g., mortality, as well as additional utilization data related to mental health and substance abuse conditions.

57 percent of hospitals in Maryland have psychiatric beds, but it [the Hospital Guide] does not measure anything about the quality of those facilities. That's kind of missing.

Usability

- **Physicians were mixed in their ratings of how difficult it was to navigate the site.** Out of the mix of primary care and emergency department physicians interviewed, most were computer savvy and had used the Internet in the past to seek out health information. However, for some physicians, the site was easy to navigate and for others, it was difficult. Examples of difficulties included:
 - A couple of physicians would have preferred to search by medical condition via a drop-down menu or search box, e.g., type diabetes and search for it, rather than scroll through the entire list of conditions.
 - A couple of physicians remarked that they did not realize users could click on the circle ratings for further information.
 - While the sideways bar chart was well-liked, physicians wished this graphic was more interactive, allowing for sorting and choosing a subset of hospitals to compare.
- **The technical information was sought after and perceived to be very important.** Physicians valued the documentation on data sources and data analyses posted on the site. For some, however, this information was hard to find and left physicians requesting more information. For example, information on how the quality measures were selected is buried at the bottom of the Technical Information section. Physicians may have been less concerned about the credibility, reliability or validity of these measures if they knew they were developed by the Centers for Medicare and Medicaid Services and JCAHO and endorsed by the National Quality Forum.
- **Overall, the design of the site appealed to physicians.** Physicians liked the color and contrast as well as the graphical data displays. To make the site more attractive to physician users, respondents suggested clearer and more pronounced headings in the utilization information section, more graphics, and fewer words on a page to minimize scrolling.
- **Labels for major sections of the site were not self-explanatory for physicians and descriptions within sections, in some cases, were not adequate.** During interviews, the moderators asked physicians to identify the data sources for information on the site. Both Technical Information and FAQs included information on data sources, however, in many cases, it took several clicks for physicians to find the information that they needed. Physicians reported that the label Technical Information did not adequately describe its contents. Even after reading through technical information, some physicians misunderstood what data sources were used. For example, they requested more information on the HSCRC data set including sample output and a description of how data were collected. Physicians also confused Technical Information with the section labeled Resources as a source for information about the data used on the site.

Sections at the bottom of the web site page were often overlooked because they did not stand out and required scrolling to be seen. Consistent with consumer impressions, important sections, e.g., Contact Us, should be easier to access according to physicians.

Nursing Home Guide

Of the 24 respondents who assessed the Nursing Home Guide, the majority had never visited the MHCC Web site and were unfamiliar with the Nursing Home Guide prior to the study. In selecting a nursing home, consumers reported relying on word-of-mouth from friends and health providers, as well as visits to facilities to obtain comparative information. Discharge planners reported relying on reputation and institutional knowledge of area nursing homes, information from nursing home representatives, and individual observation at open-houses.

The majority of consumers had never used performance data to compare nursing homes and much of the information presented in the Guide was new to them, including educational resources. In contrast, several of the discharge planners had experience using nursing home reporting tools that contained limited information about bed size, available services and survey results. However, in general, discharge planners had no experience using quality indicators to evaluate the performance of nursing homes.

Both consumers and discharge planners responded very favorably to the Guide. Nearly all respondents would recommend the Guide to a friend (consumers) or colleague (discharge planners) and would access the Guide again in the future. They liked that it was fairly comprehensive, allowing “one-stop shopping” for useful information, and that they could perform individualized research. Respondents found certain features to be particularly helpful, such as the consumer checklist to choosing a nursing home, facility and resident characteristics, and basic survey results. Discharge planners especially liked the “advanced search” feature and made suggestions to make it more useful.

Although respondents felt that the quality indicators and deficiency information was important to include in the Guide, both user groups had much difficulty navigating and interpreting the data. In particular, the quality indicators categorical composite chart was too complex and often misinterpreted by users. The quality indicators state graph was not understandable and did not suffice for users’ desire to simultaneously compare indicators across multiple nursing homes. Users liked the overall design of the Guide and offered several recommendations to increase the navigability and simplify the language of main headers and quality indicators. Respondents wanted information about staffing and cost to be included in the Guide and information pertaining to available services and deficiencies to be expanded.

Overall, respondents trusted the Guide as an additional resource to inform their decisions. Consumers would mostly use the Guide at the time of placement to help narrow their search. Discharge planners’ use of the Guide varied. Some would perform an initial search to narrow down the list to facilities that offered needed services and advise patients and their families to access the Guide for further information; some would simply print out the Consumer Checklist tool; and others would include information about the Guide in patients’ discharge packets. Nearly all discharge planners reported that they would use the Guide to locate potential facilities for patients seeking placement outside their traditional referral area.

The following describes the respondents’ reaction to the Nursing Home Guide in greater detail by respondent type and four categories of inquiry: usage, understanding, usefulness and preferences and usability. Exhibits 4 through 6 include quantitative responses from interviews.

Exhibit 4: Findings on Usage of Nursing Home Guide

Topic Area	Nursing Home Guide	
	Consumers (n=16)	Discharge Planners (n=8)
Usage		
Had visited the general MHCC web site before this study	3	2
Had heard of the Nursing Home Guide before this study	4	3
Had used the Nursing Home Guide before this study	1	0
Had used information to compare nursing home quality in the past	8	3
Would access the Nursing Home Guide in the future	15	8
Would recommend the Nursing Home Guide to a friend or colleague	16	8
Would advise their patients and their families to use the Nursing Home Guide (<i>Discharge Planners</i>)		7

Exhibit 5: Findings on Usefulness and Preferences of Nursing Home Guide

Topic Area	Nursing Home Guide	
	Consumers (n=16)	Discharge Planners (n=8)
Usefulness and Preferences		
Average Rating of Usefulness (on a Scale of 1 [least useful] to 5 [most useful])	3.8	3.6
Reported trusting the information in the Nursing Home Guide:		
<i>Very much</i>	10	6
<i>Somewhat</i>	6	2
<i>Not at all</i>	0	0
Thought that the Advanced Search was: ^a		
<i>Very Useful</i>		6
<i>Somewhat useful</i>		0
<i>Not very useful</i>		0
<i>Not useful</i>		0
Thought that the information in the Nursing Home Guide would make it easier to do their job (<i>Discharge Planners</i>)		6

^a = This question was added to the discussion guide after the first two interviews with discharge planners had been conducted and therefore there was a total of six discharge planners who answered this question.

Exhibit 6: Findings on Usability of Nursing Home Guide

Topic Area	Nursing Home Guide	
	Consumers (n=16)	Discharge Planners (n=8)
Usability		
Thought that locating information on the site was:		
<i>Very difficult</i>	0	0
<i>Somewhat difficult</i>	3	0
<i>Somewhat easy</i>	9	2
<i>Very easy</i>	4	6
Thought the Nursing Home Guide had a:		
<i>Good Design</i>	9	3
<i>Fair Design</i>	4	4
<i>Poor Design</i>	0	1

Findings for Consumers

Usage

- **Consumers had little to no experience using performance data to inform health care decisions.** The majority of consumers were unfamiliar with the MHCC and its Nursing Home Performance Evaluation Guide. Many consumers had experience searching for health care information on the Internet, including information on medical conditions, pharmaceuticals, and home health care. However, most consumers had never sought information about nursing homes on the Internet. Only one consumer had heard of CMS' Nursing Home Compare tool. In general, they had limited experience using comparative performance data of any kind prior to this study. Much of the content and the performance evaluation features of the Guide were therefore new to respondents.
- **Most consumers would use the Guide to help narrow down the number of facilities of interest.** Respondents reported that while they would still rely on word-of-mouth and visits to select a nursing home, they envision using the Guide as an initial resource to learn more about nursing homes and options. As noted by one consumer:

It gives information to have before going into the process as far as payment avenues...what to expect. I think a lot of people are confused about that and have a lot of fears having to pay [for nursing home care]. This gives good guidance and good links to the right resources.

A commonly reported use of the Guide would be to utilize the search function for generating a list of facilities in the vicinity and printing all of the facility-related information from the site. Nearly all respondents would use the contact information to follow up with the facilities. Several remarked that they would use the information about resident characteristics to make a match with an appropriate home. For example, they would not want to place a loved one who was cognitively intact in a facility in which a very high proportion of residents had severe dementia.

Also, respondents thought they would use the deficiency information to help rule out poor performers if they had ample time to review survey results. However, if suddenly faced

with having to place a relative or loved one in a nursing home, respondents thought their choice would be greatly limited by which facility in the vicinity had an open bed and by payment source. There was great uncertainty on the part of consumers as to how to use the quality indicator data.

- **Consumers perceived the Guide to be more valuable for informing pre-admission searching and education, and less so for monitoring care being provided.** The majority of respondents reported that the information in the Guide would be most useful prior to admission for selecting facilities. In fact, several consumers thought the Guide would indicate which nursing homes had openings so that if a relative needed to be placed within the week, they would know about facility availability. Consistent with behavioral research on consumers' reluctance to plan for future long-term care needs, most respondents reported that they would likely use the Guide only if suddenly faced with the decision of placement as a last resort.

Several consumers mentioned that they envision using the Guide near the "point of crisis" rather than as a planning tool for future needs. As one consumer noted:

I would use this when I really need it. I wouldn't be looking at it now for an elderly aunt who doesn't need [nursing home care]. It would probably be when it came to a crash or crisis when you'd probably go to it. People don't ever plan things.

When probed, almost none of the respondents thought they would use the Guide once a loved one was placed. Regardless of the performance of the nursing home as reported by quality indicators and deficiencies, if they were satisfied with the care of their loved one, they would not seek out information in the Guide. Two consumers reported that if they were dissatisfied with the care, they may find the Guide useful.

Understanding

- **The terminology was perceived as geared toward professionals.** Consumers understood the information about facility and resident characteristics but had much difficulty comprehending the quality indicators and survey results. Repeatedly, respondents remarked that the Guide contained too much technical jargon. With the language beyond the level of a lay person, consumers did not understand some of the information, altogether, or they misinterpreted the data. Examples of problematic terminology include:
 - The term "prevalence" was not understood. For example, rather than "prevalence of symptoms affecting others", respondents more easily understood "the number of residents with behavioral symptoms affecting others."
 - The term "MDS" was unfamiliar to all but one consumer, but it was used in explanatory references throughout the Guide.
 - The main headings and subheadings of quality indicators were difficult for many to understand. For example, rather than using "anti-anxiety/hypnotic use", use more common terms that the general public can relate to that appear in the description, such as "sleeping pills and tranquilizers."

When they consulted the FAQs on the site, several consumers thought the responses were too technical as well.

- **Many consumers had difficulty understanding the quality indicators and measures and how to apply these data.** Consumers understood that the Guide features components of quality care but did not necessarily consider the existing data as indicators of performance. They did not link poor performance to many of the indicators or the notion that some conditions may be preventable with proper care. For example, consumers did not associate increased falls and incontinence with a facility's performance but instead with the type of residents at the facility. Other indicators, such as activity level, were more automatically associated with a "good" or "bad" facility. In many instances, consumers interpreted prevalence information (e.g., facility with high rates of a certain medical outcome such as tube feeding or cognitive decline) not as an indicator that a quality problem may exist but as information for placement decisions regarding preferred resident population.

In addition, respondents did not understand risk-adjustment. As one consumer who had prior experience with nursing homes remarked:

The patient population differs by facility. Some patients are heavier care than others. You can have a facility with good care but it looks average because of the type of residents it has. For me to make something of this, the [level of acuity] needs to be highlighted so it is obvious to a user if a facility has higher acuity.

Consumers consistently asked what the expectation was for each of the quality indicators and measures. They wanted a simple explanation of the expectation of care and if the facility cares for residents as expected, better than expected or worse than expected. As one consumer remarked:

What does the nursing home do so residents avoid dehydration? I want to know if the facility takes care of residents so that they do not get dehydrated. What's that saying about incontinence? I know a lot of seniors with bladder problems.

This was confounded by problems understanding both the summary chart of quality indicators and the statewide bar graph. None of the consumers understood the categorical composite chart of quality indicators. In addition to not understanding what the categories implied, they were confused about what the numbers represented and to what the total column referred. Once they clicked on a quality indicator category, they had much difficulty interpreting the circle symbols. Interview findings affirm that simple explanations and evaluative symbols as a comparison strategy are needed for consumers to draw meaningful inferences from quality indicators. However, most consumers had difficulty interpreting the circle symbols as demonstrated by the following:

It's kind of confusing to me. It says top 20% of all facilities. Is it the top 20% of the facilities that had the most falls or are the top 20% without having falls?

I've researched cars on Consumer Reports but this system is opposite. The plain one is the good one, and the black one is the bad one in Consumer Reports.

In addition to problems comprehending the symbols, users had difficulty remembering their meaning once they scrolled down to the desired information on the page. The use of "N/A" was often misinterpreted as "this information does not apply to this nursing home or the home does not do this." For example, when the N/A notation appeared when

viewing medications information, treating people for psychosis, several consumers interpreted this as that particular facility does not have residents to treat for psychosis.

Likewise, none of the consumers understood the state graph and were not interested in reading the explanatory text. Several remarked that they were intimidated by such complex graphs. Consumers consistently requested wanting to be able to simultaneously compare quality information across multiple facilities and reported that the state graph did not suffice for comparing nursing homes.

- **There was confusion about reporting cycles and the currency of the data.** The majority of respondents did not understand why there were different dates associated with information throughout the Guide. Particularly with respect to facility deficiency information, consumers did not understand that these data are updated more frequently than the rest of information in the Guide (every six months, as it becomes available). When consumers compared deficiency reporting for several facilities, they were confused as to why some facilities had reports more periodically than others and interpreted that to mean the site was not updated for some facilities. For example, in viewing Potomac Valley Wellness and Nursing Center, consumers were confused as to why full reports in 2002 were available for 3/26/02, 11/08/02, and 12/30/02, but in 2003, were only available for 3/05/03 and 5/19/03.

Usefulness and Preferences

- **Consumers found the Guide to be useful for gaining a broader understanding of nursing homes and for selecting facilities.** Consumers perceived the Guide to be useful, feeling that it is fairly comprehensive and empowers them to make choices. They found the facility characteristics and the educational features on the site most useful. They especially liked, “How to Pay for a Nursing Home,” “A Consumer’s Nursing Home Checklist,” and the “Patient Bill of Rights.” Respondents with experience residing or caring for a loved one in a nursing home thought it was helpful to have the Resident Rights on the site because most people do not ever see this until they are admitted. Regarding the educational materials, consumers remarked:

It gives good information and more than what we would learn if we went in person because there are a lot of things we’re not going to ask. You get there and forget to ask.

The overall guide to what the consumer should be looking for [in selecting a nursing home] was done very well. It gives advice on going to visit facilities at different times. I think that’s important. Any facility, you could read comparative information or [brochures], but really seeing how the facility operates and the attitudes of the staff, where employees seem to be calm and happy, are some of the most important things to me.

Consumers with experience of having a loved one in a nursing home suggested there be more information about the role of the Ombudsman and that the state and local Ombudsman contact information should be prominently displayed. This group liked the Guide’s recommendation that people should visit the facility at different times.

In addition to the educational materials, respondents liked the information about facility and resident characteristics. Most consumers thought it was useful to have the deficiency reporting in the Guide but reported that this information was too confusing as it is currently presented to be very useful.

- **Consumers desired additional information about non-clinical components of quality.**

When asked about what characteristics of quality consumers would hope to find in a Guide on area nursing homes, the most common responses in order of preference were: the location and size of the facility, cost, staffing ratios, service listings, information about food quality and cleanliness, and quality of care. With respect to the location of the facility, respondents were also interested in knowing the distance to and name of the nearest hospital(s). Regarding information about cost and payment, respondents found the overview of payment helpful, especially the more detailed discussion of cost structures for Continuing Care Retirement Communities (CCRC). Not surprisingly, consumers desired to have a gauge for the relative cost of nursing homes, whether it be a numerical range, average cost, or categorical (e.g., Very Expensive, Expensive, Moderate).

In addition, consumers perceived staffing to be a key factor in assessing the quality of care in nursing homes and desired more detailed information in the Guide. Some suggestions included presenting information about staff turnover, the ratio of nurses to residents and the ratio of nursing assistants to residents, during both the day and evening shifts. Similarly, consumers wanted background information about affiliated physicians, the Medical Director, and the Administrator. Consumers thought that knowing how the staff treats residents is important, but obtaining this type of information would be best through word-of-mouth and observation.

Consumers desired to know what services are offered, such as rehabilitation and recreational activities. Many respondents requested more information about physical environmental attributes of quality, including cleanliness and if a facility has a protected outdoor park-like setting for residents and their families to walk around. Another consideration of quality of life, consistent with research on resident-centered quality in nursing homes, was interest in knowing more about the quality and choice of food in the nursing home.

In addition to more basic staffing information, consumers were interested in knowing how the nursing home takes care of special needs, such as Alzheimer's Disease and pain management. Lastly, they desired comparative information about elder abuse to better assess quality of care.

As previously described, consumers did not understand the existing state graph on quality indicators. Most respondents felt that did not have the patience to try to figure out the graph. They preferred to have a printer-friendly report that listed selected facilities with indication of where this facility performs especially well and where there are problems, in comparison to other facilities. Several respondents requested that the quality information be compared not just to Maryland facilities but to national performance.

- **Many consumers thought the Guide would be more useful if trend data were included.**

Consumers were interested in knowing how facilities performed over time. With respect to survey results, some respondents wanted more information about sanctions on repeat offenders, including monetary penalties or denial of payment during previous years. They also wanted to know if the nursing home has remained in compliance, took corrective actions or repeatedly failed to take corrective actions. For example, from FY 1998 to 2002, "Which facilities cited for serious deficiencies were cited again in subsequent inspections for the same problems?" Other commonly requested trend information included occupancy rates, average costs and elder abuse patterns.

- **Overall, consumers perceived the information to be trustworthy and unbiased.** Consumers remarked that it is important to know that the Guide is sponsored by an entity independent from the nursing facilities. Consumers who had stayed in a nursing home or cared for a loved one in a nursing home were adamant that the data were not just populated by the nursing home because then they would be biased. Similarly, there was mixed reaction when asked if it would be useful to include information about the nursing facility from the resident and family perspectives. Some questioned the credibility of resident satisfaction results and distrusted the responses. As one consumer remarked, “the nursing homes will only present positive information.” However, many consumers thought that resident and family satisfaction survey information may be useful if surveys contain some uniform items. The most common items of interest included how satisfied residents are with food, activities and staff.

Although the majority of consumers trusted the Guide, several found inaccurate information when performing searches. For example, one consumer looked up Villa St. Michael Nursing and Rehab Center and reported that the contact listed as the nursing home administrator was incorrect. When consumers found inaccurate information on the facility’s basic information page, they viewed other information about the facility with caution. In a few instances, consumers distrusted the performance data based on their own experience with the facility. For example, one consumer reviewed information about a nursing home with which she had a negative experience in the past and found that the Guide did not adequately reflect the quality of care.

I had a friend who couldn’t stand it [at the nursing home] and another who walked out of there. Maybe they’ve improved it, but those circles don’t tell you anything.

- **Keeping the Guide updated was associated with the overall usefulness of the Guide and its relative usefulness to other sources.** Consumers distrusted information if it appeared out-of-date. For example, some searches yielded the most recent deficiency reports from one year ago and consumers thought the information should be less than six months old. As described by one consumer:

Here’s a facility that’s had some major mega-problems. They were in the newspaper not too long ago. You almost wouldn’t really know it in here. The inspection in 2003 has zero substandard quality care, but yet they were in the paper for a resident dying because of being over tube-fed, and being fined by the state. So something like that is suspect to me because it doesn’t really give me current information. I’d look at this and say, well gee, no substandard quality care. And certainly the deficiencies that they had were greater than at least a G-level deficiency, and it’s not reflected in here at all.

Consumers felt that a value of the Guide is that it can be more easily updated than brochures and other printed materials, and therefore could be more current and trustworthy than these other sources.

Usability

- **Respondents’ experience with using the Internet was not associated with the usability of the Guide.** Consumers varied greatly by degree of experience using the Internet, ranging from new users to experienced users that access the Internet daily. Despite the marked difference in Internet experience, the results on usability were similar for the entire target group. The exception being that the more experienced users were accustomed to scrolling

to find information. However, the majority of consumers experienced difficulty navigating the site. Consumers had trouble remembering what facility they were reading about and in general, what section of the Guide they were at and how to look for items of interest. In some instances, items identified as hyperlinks were not linked. The labeling of many of the headings and subheadings were not instinctive to consumers (i.e., the meaning of FAQs, Consumer Checklist, Quality Indicators). Also, consumers often missed the most important displays because too much text preceded the data. This was the case even when trying to perform a facility search.

- **Consumers liked the design of the site.** Overall, consumers were pleased with the font, text size, colors and contrast. They especially liked the large text size. However, respondents recommended that the text in the pop-up boxes for the quality indicators be enlarged to be more readable. Some consumers suggested using alternate colors for the facility name and main headers to make them stand out. Although a few consumers felt it would be useful to have pictures of the facilities and “virtual tours”, the more Internet savvy consumers thought that it was best not to include too many graphics that would be affected by connection speed and downloading.
- **Consumers preferred pertinent information to be displayed together rather than clicking on several pages.** Consumers especially liked the “printer-friendly version” feature that combines facility and resident characteristics, quality indicators and deficiency results in one place. As one consumer remarked:

[Seniors] are not patient. We look at something we don't know, then we go someplace else.

This finding is consistent with respondents' desire to be able to easily print off facility information to examine in greater detail. Similarly, consumers thought the Quality Indicators section would be easier to read if the categories and indicators were all in one place rather than having to click on each category. Users liked the mouse over “pop up box” for its content and also because they did not have to go to another page. Users also liked the fact that they did not need to scroll from left to right to read information.

- **Consumers searched for facilities using all available options except for the advanced search feature.** Having multiple options to perform a search was useful for consumers. They used all of the available options to search for facilities, except for the advanced search function. The features used, by order of popularity, were: zip code with distance, county, and then by name of facility. Respondents were distracted by the text preceding the search functions and often needed guidance to scroll down to see county map. Consumers experienced much difficulty using the county map and expected to be able to double click on a preferred county for that information. Consumers did not understand the option to search multiple counties. When the facility listing meeting users' search criteria was presented, many consumers did not understand how to then get facility-specific information.

Findings for Discharge Planners

Usage

- **Discharge planners have used other nursing home reporting tools, but have limited experience using quality indicators to compare the performance of nursing homes.** The majority of discharge planners were unfamiliar with the MHCC and its Nursing Home

Performance Evaluation Guide prior to the study. They reported using a variety of public reports on nursing homes including: The Guide to Retirement Living, various watch lists, HealthGrades, New Lifestyles' Nursing Home Inspector, and CMS' Nursing Home Compare. These reporting tools, with the exception of CMS' Nursing Home Compare, focus on different aspects of facility and resident characteristics and survey data and do not address quality indicators to compare nursing home performance. Three respondents had experience using the CMS' Nursing Home Compare tool and reported that they used this mostly to review survey results. Therefore, using quality indicators and measures to compare nursing home performance was new to the majority of discharge planners.

- **Discharge planners' likely use of the Guide varied.** Discharge planners reported that they typically rely on reputation and institutional knowledge of area nursing homes, information from nursing home representatives, and individual observation at open-houses. They tend to trust word-of-mouth from colleagues and discussions with admission staff. Many respondents reported that they often share nursing home brochures with patients and their families and other related material that the facilities have provided. While discharge planners try to present options for patients and their families, they do not typically present comparative information for families to review. Many discharge planners have advised patients and families to review survey results that are posted or available at the facilities.

Most of the respondents thought their primary use of the Guide would be to assist families with a search based on clinical criteria and then refer the family to access the Guide for more information about facilities. As described by one discharge planner:

We worry about how quickly we put people in a position of making these decisions. So for anybody that is Internet savvy, I think we could say, for example, here are the four nursing homes in Catonsville, why don't you try to make a decision so that you can stay near your loved one. It wouldn't take the family very long if we gave them the names, told them about quality measures and services on the site, and encourage the family to visit the facilities.

The most commonly reported uses of the Guide would be:

- Printing the Consumer Checklist or Printer-friendly Report if the patient does not have access to the Internet. Although two respondents reported that the Consumer Checklist was helpful, some thought that it was too long and time-consuming.
- Using the advanced search feature, narrowing down the nursing home search for patients based on geography and the particular services that they needed.
- Some discharge planners remarked that they could not envision sitting down with patients and families and reviewing this information with them. This was particularly the case when a patient needed an immediate placement and the discharge planner places based on bed availability. However, if there was more time, they would encourage families to seek out the Guide. Discharge planners noted that when trying to place a patient in the area, they already know which nursing homes to avoid because of past difficulty placing patients.
- **Discharge planners would also use the Guide to assist in locating potential facilities for patients outside the traditional referral area.** Many discharge planners remarked that the

Guide would be particularly useful for generating a listing of facilities outside the vicinity. They reported that the Guide would enable them to offer patients and families more choices.

Understanding

- **Consistent with MHCC goals, discharge planners understood the intended purpose of the Guide as a supplement to other sources of information to inform decisions.** Many discharge planners remarked that the Guide allows more efficient research but that nothing substitutes for visits, word-of-mouth and asking other families about the facilities.
- **While most discharge planners valued the quality indicator data on the site, they did not comprehend the summary chart and often misinterpreted the ratings.** Similar to the experience of consumers, discharge planners had much difficulty understanding the composite quality indicator chart. Specifically, they did not understand to what the “Total” column referred. Some thought it was the number of patients but then did not know why the total number was so similar for multiple facilities. Also, under the Medication category, one respondent thought that the “four” implied that there were four medication errors rather than four indicators of quality related to medication. Also, half of the discharge planners were unfamiliar with the MDS and therefore did not understand the source of the Quality Indicators.

Also similar to the consumers’ experience, the discharge planners did not understand the quality indicators statewide performance scores graph and did not find it useful. They too desired to be able to simultaneously view multiple facility listings and associated ratings across all categories.

- **Most discharge planners had difficulty interpreting the circle symbols for Quality Indicators and desired a clearer explanation of the rationale for items being listed as a quality indicator.** Although discharge planners thought there was great value in presenting comparative performance data, the rating system was confusing and time-consuming for discharge planners to find useful. The quality indicator data were often misinterpreted as demonstrated by the following common remarks:

Prevalence of symptoms affecting others (high risk) with a half-filled circle means that it is half prevalent at this facility.

User is viewing indwelling catheter information: If they got fair on that, somewhere between the top and the bottom, then does that mean that they have more catheters than people really should need and that they’re using them for convenience of the staff? The fact that they have more catheters, does that mean that they are not doing enough toileting or do not have enough care staff to take people to the toilet? I really don’t know how to interpret that.

I’m getting the gist that if you got a full circle, that was a good rating and the empty was a poor rating, but then when it says ‘all others’, that’s confusing.

Overall, discharge planners preferred a more simplified display of ranking for Quality Indicators, such as a star rating system. They also requested an explanation of how the quality indicators relate to a desired performance goal. In addition, most respondents did not understand why quality indicators and quality measures were separated and the majority of users missed the quality measures link.

Usefulness and Preferences

- **Discharge planners perceived the Guide to be useful for patients and families, and somewhat useful in assisting with their role and responsibilities of discharge planning.** Several respondents thought that information in the Guide would assist them in searching for facilities that meet the specific needs of their patients. In particular, discharge planners could find out which facilities care for tracheostomy and vent patients as well as find out about and locate facilities outside of their specific geographic region. Some remarked that they would review deficiency information and look for substandard care problems prior to referring patients.

Others found the Guide to be much more valuable for a consumer to use and less so for discharge planners.

I think it would be useful for somebody who, all of a sudden, if faced with having to put a loved one in nursing facility and has never been in a nursing facility before and really knows nothing about what's out there...knows nothing about how to pay for care or what Medicare pays for, or how to apply for medical assistance. As a first stop, this site would give people a lot of information that they can at least develop good questions to ask.

Do I think people on a daily basis are going to take the time to do this kind of search instead of going with what they know? I'll give a 50-50 on that. It's useful if you've got a question.

[Discharge planners] know the services that are offered at all the different facilities already, and we know their admissions persons and their capabilities. I wouldn't go to the Web site to check out a place before referring somebody. It's not going to change what we do, how we do it, or guide us any differently than what we already do.

We are constrained by waiting lists. If a facility is full, we can't send a patient there regardless of how well it performs.

- **Overall, discharge planners perceived the Guide to be trustworthy.** The majority of respondents trusted the data sources. In referring to the Quality Indicators, one respondent remarked:

I trust what they're saying here. The MDS is either going to be accurate or not accurate. If it's taken directly from the MDS information, I have to take that as fairly accurate.

Interestingly, half of the respondents were not familiar with the MDS and did not fully understand the use of risk-adjustment in the Guide. A minority of discharge planners voiced some concerns about the credibility of the performance indicators and thought that without further explanation, they could be misleading for consumers. They felt that many of the quality indicators are sensitive to resident case-mix. As one discharge planner noted:

[The site] needs to compare apples to apples. It's difficult to interpret information knowing that one facility has a significant sub-acute caseload than another. If one facility has more tube-fed patients, [the facility] is going to have a higher acuity level of care than at a facility with light to medium care patients. It is important to indicate these differences to patients.

Another finding was that the currency of data was related to credibility. In a few instances, users viewed basic facility characteristics information (e.g., name of nursing home administrator) and reported that the information was incorrect. This finding led them to doubt how recent the rest of the information is on the site. Similarly, several respondents thought the timeframe for resident characteristics (June 2002 to December 2002, taken from MDS) was outdated. They emphasized that the resident population can change significantly in the elapsed time. As reported by a discharge planner:

In one of the facilities, they have 80 admissions and discharges a month, so a lot of turnover. So I'd much rather see the six-month period from January to June 2003, than from June to December 2002.

- **In comparison to CMS' Nursing Home Compare, this Guide was perceived as more comprehensive but not as current.** Nearly half of the discharge planners had no prior knowledge of the Nursing Home Compare site. Of those respondents with previous use of Nursing Home Compare, most thought that the data are updated on a monthly basis and more current than the MHCC Guide. Discharge planners noted that the deficiency data in the MHCC Guide were from a survey a year ago and felt that circumstances can easily change in thirty days within a facility. Others noted that they liked how the Nursing Home Compare site displays hours of care per resident per day and suggested that the MHCC Guide include staffing hours as a component of quality.

In general, discharge planners thought that Nursing Home Compare was predominantly survey information and that the MHCC Guide offers more comprehensive information.

I like [the MHCC Guide] because it give you more information [than the Nursing Home Compare] about the overall make-up of the residents at the facility...that is, would Mom be better off here or there based on this high level of dementia care. It gives you a little bit more feeling and indication of the facility.

- **Discharge planners desired additional indicators of quality and expanded information about available services and deficiencies.** When discharge planners were asked about what characteristics of quality they would hope to find in a Guide on area nursing homes, the most common responses were: the type of services offered, staffing patterns, wound care outcomes, and type of therapy offered. With respect to types of services offered, respondents desired to know more about the type and quality of available services (i.e., therapy, nutrition, psychiatric, social, rehabilitation and recreational) and whether they were offered in-house. Discharge planners also mentioned: respiratory in-house, dialysis in-house, transportation, substance abuse programs, and pain management program. They would hope to find resident and family satisfaction information to describe how residents are treated, the day-to-day experience for residents, and degree of stimulating interaction.

In terms of staffing patterns, discharge planners reported they were interested in staffing ratios (i.e., nurse to resident ratio, CNA to resident ratio, and respiratory therapist to resident ratio) to indicate how often residents are going to be checked, the frequency of turning and the overall attention residents will get. They would also like to know the hours of care per resident per day for nursing home aide staff. A few discharge planners desired the hours of care to be separated by hours of care per resident per day for rehabilitation, short term units and long-term care units. Other clinical indicators of quality of interest included the rate of wound care pre/post nursing home and the incidence of hospital

admissions from the nursing home. Many respondents suggested displaying trend data for the Quality Indicators and Deficiency sections.

In addition, discharge planners wanted to know more about nursing homes' physical environment, such as cleanliness of rooms, room options, telephone access, and whether or not the facility has a locked or secure area. They thought it would be useful to list which hospital(s) are closest to the nursing home and the type of insurance the facility accepts.

Usability

- **The advanced search feature is useful but difficult to locate.** Users required guidance to locate the advanced search feature. They thought the feature was buried and preceded by too much text. When instructed on how to locate the advanced search feature, discharge planners found this method of searching very useful, especially for being able to indicate clinical service criteria. They recommended making this search feature more prominent. In addition to the existing search criteria, discharge planners wanted to be able to search by services offered in-house. Also, they preferred having the option to sort the results by geography (zip code, distance, etc.).
- **Discharge planners liked the design of the site.** Overall, discharge planners were pleased with the font, text size, colors and contrast. They liked the large text size and perceived the design was appropriate for their patient population. Some respondents recommended using more distinct colors and cross-hatching on any graphs to make them more readable on the screen and when printed. Discharge planners also suggested using alternate colors for the facility name and main headers to make them more prominent. Many of the respondents remarked that there was too much text, making navigability and readability unwieldy for efficient use. Discharge planners emphasized that they need to know what is on the site quickly and that less text and more understandable phrasing for Quality Indicators would be beneficial. Discharge planners also liked the printer-friendly version that lists all facility information together.

IV. RECOMMENDATIONS FOR IMPROVEMENTS TO THE EVALUATION GUIDES

Overall

Based on interview findings and prior experience with health care performance data and Web site design, the project team offers several recommendations to improve the usefulness, understanding and navigability of the Guides. Recommendations are classified by: 1) modifications related to the organization and functionality of the sites, and 2) recommended information to include, exclude or expand. *Appendix E* presents "quick fixes" not addressed in the body of the report.

Modifications to Organization and Functionality

- Modify the sites by building in layers of information to allow both simplified reporting and drill-down options for more technical users. This may prevent consumers from feeling overwhelmed or intimidated by too much detail and satisfy health professionals, particularly physicians, who desire more technical information, such as tests of statistical significance, when comparing hospitals. Modifying the sites by building layers rather than

constructing separate portals is more feasible and easier to update. It is also responsive to respondents' desire to view data both as composite and individual measures.

- Offer a site map for each Guide to facilitate users' navigability. Respondents consistently lost their place during searches and had some difficulty locating information in various sections of the Guides. (*An example of a proposed site map is located in **Appendix F***). Similarly, consider building capacity for an internal search engine.
- Prominently display when information was last updated and when the next update is expected. The interview results demonstrate that knowing how recent the data are is associated with users' trust of the Guide. Because there are multiple data sources and reporting cycles within each Guide, particularly the Nursing Home Guide, it would be most helpful to display the dates with each section.
- Reduce the amount of text to increase readability and prevent unnecessary scrolling. Findings suggest that users want the sites to be quick-and-easy to use – health professionals do not have the time to read through all the material and consumers either do not have the time or do not have the patience. Consider using more simplified graphics and fewer words.
- Position most popular links prominently and subcategorize other less popular items. For example, all respondents preferred that the Letter from the Chairman be removed as a fixed main heading. In addition, consider restructuring the home page so that there is a clear left-side menu. The top and bottom menus can be confusing for new users, since headings like Technical Information can mean many things to different users. Using a side menu will also help with the scrolling problem. Users often do not scroll down to see what is below their current viewing area.

Recommendations for Information to Include, Exclude or Expand

- Enhance readability by simplifying the terminology and explanatory language. This is recommended for the content on the Guides' home pages, sections and headers. Several main headers were problematic for consumers, such as FAQs, Technical Information, Consumer Checklist, and Quality Indicators. In relation to quality indicators and measures, respondents thought the sections were too wordy and replete with clinical jargon. It is recommended to use pathological terminology with which consumers are familiar. Consumers typically understood the rollover descriptions and suggested that similar language be used to replace the "prevalence" and "incidence" phrasing.
- Provide performance goals for the quality indicators and measures to clarify expectations of standard care and facilitate comparisons. Respondents had difficulty understanding the quality indicators and measures and how to apply these data. Consumers did not intuitively link provider performance to the indicators. Most respondents wanted to know if the provider performed as expected, worse than expected, or better than expected.
- Simplify the rating system used to compare utilization and quality measures. In general, respondents were dissatisfied with the 70% half-filled circles and thought this was too broad and not useful in making comparisons. Although some respondents desired numerical rankings, interview findings suggest that this may be misleading and misinterpreted. Many respondents thought that a star system (similar to HealthGrades) may be more intuitive for users and easier to interpret. Regardless of the chosen symbols, the sites need to be revised

for consistency of usage and order of symbols (i.e., between legend and chart display, across sections).

- Expand clinical indicators and include non-clinical indicators of quality. Respondents reported that staffing was a main factor in assessing the quality of health care providers and desired more detailed information about staff qualifications, demographics and interaction with patients/residents to appear in the Guides. Incorporating patient/resident satisfaction data will support the expansion of quality of care and quality of life factors. Respondents also desired a more comprehensive listing of services offered and indication of “centers of excellence” or specialized services unique to facilities. For the Hospital Guide, in particular, respondents requested that quality measures address more medical conditions and a broader audience, e.g., mental health and substance abuse and pediatrics.

Recommendations for the Hospital Guide

Redesign of the Home Page

- To improve physician and consumer usability of the site, redesign the home page to highlight the most important sections of the site; begin with prompts to act and minimize the amount of reading needed at the outset. Specifically:
 - Move “Getting Started with the Hospital Guide” to the top of the page so users do not need to scroll down to see it. It should be the first item noticed by a first-time user.
 - Structure the home page so that there is a clear left-side menu with the most important sections of the site, e.g., Searches, Consumer Checklist, Technical Information, Contact Us, FAQs. Currently, the top and bottom menus provide sections of unequal usefulness. In addition, users rarely access the bottom menu due to the scrolling. Using a side menu will alleviate the scrolling problem.
 - Relocate sections of less importance, e.g., Letter from the Chairmen, Legal Disclaimer, Patient Bill of Rights.
 - Re-label menus so that they are more self-explanatory. A good example can be found on the Texas Hospital Checkup Web site at: <http://tbgh.org/checkup/>.
 - Re-label Technical Information. Suggestions include: “Data Information,” “Data Collection,” “Detail on Information,” “Data Sources and Statistics,” “About Data Sources”.
 - Re-label Contact Us. Suggestions include: “How to Contact Us”, “Contact Us with Questions.” One respondent recommended that a form be posted on this section of the site to allow users to e-mail MHCC with questions or comments.
 - Re-label Consumer Checklist to “How to Choose a Hospital” or “What to Expect at a Hospital” or “Agenda for Patients Seeking Hospital Care.”
 - Re-label Resources to “External Resources”.
 - Re-label FAQs to “Frequently Asked Questions” or “Commonly Asked Questions.”
- Create a site map and add a link to the new site map on the home page. (A proposed site map can be found in *Appendix F*.)

Modifications to Facility Search and Output

- The multiple-county search could be improved by indicating to users how output is sorted.
- Once users select a facility, the facility name should appear at the top of each frame (and in a different color, perhaps) so users do not forget which facility they are assessing. This recommendation is most applicable to the Utilization Information section of the site that requires extensive scrolling.
- To clarify the state comparison column, re-label “Maryland” header to “All Hospitals in Maryland.”

Modifications to Medical Condition and Quality Measures Searches and Output

- To facilitate consumer understanding of the medical condition data on the site, use pathological terminology with which consumers are familiar for conditions and procedures.
- To minimize confusion, refer to the same conditions by the same terms throughout the site.
- To improve the navigability of the site,
 - allow users to double click on a condition or quality measure to select it.
 - provide a search box for users to enter a medical condition of choice.
 - separate the medical condition search from the quality measures search.
- To provide more linkages among similar data that reside on different sections of the site, add short messages (either hyper-linked or not) to indicate how users might find related information. For example,
 - if users select data on heart conditions, then the resulting page should inform users of the existence of heart failure quality measures.
 - if users are reviewing utilization information for a particular hospital, make them aware that more detailed explanations of how data were calculated are provided in Technical Information.
- Add footnotes to data tables and graphics indicating how to get more detailed information on sources, analysis (e.g., see Technical Information)

Modifications to Utilization Information Output

- To improve navigability within this section,
 - add a clickable alphabetic list of all the main Utilization Information category headings at the top of the Utilization Information. This will enable users to jump to a specific section without having to scroll down the page.
 - add a “search” box so that users may type in a specific medical condition.
 - make the main Utilization Information headings (by DRGs) more prominent. Put the headings in a different color and in capital letters so that they are more pronounced to users.
 - change “Compare All Hospitals” to “Click H Symbol to Compare All Hospitals”. The H symbol does not currently stand out and most users do not know that it is “clickable.”

- To simplify terminology, re-label “Risk-Adjusted Length of Stay and Readmissions” to “Length of Stay (Risk-Adjusted)” and “Readmissions (Risk-Adjusted)”

Additional Content

In the Technical Information section of the site:

- Add more information in the Technical Information section on how the raw data were collected, denominators of data on like medical conditions or quality indicators; physicians requested seeing 95% confidence intervals for risk adjustment
- Provide more evidence for consumers and physicians regarding the choice of quality indicators, e.g., links to AHRQ research on quality indicators from the quality measures page
- Simplify explanations to be less complicated (for example, "Selecting Cases to Include in Data Reporting" explanation)

The most frequently requested areas of new content included:

- Physician characteristics.
 - One short term suggestion made by MHCC was to link the MHCC site to Maryland Board of Physicians site www.mbp.state.md.us which provides a physician look-up feature.
 - A longer term solution would be to collect contact and other descriptive information on admitting physicians on staff at hospitals. Hospital referral services would be an important source for this information.
 - Descriptive information about staff qualifications. For example, the Texas Hospital Checkup Web site reports on whether the hospital staffs its intensive care unit with specially trained intensive care doctors.
- Patient satisfaction.
 - Provide survey results from actual experiences of former hospital patients. For example, [myHealthFinder.com](http://www.myhealthfinder.com) displays survey results of patients from three categories: 1) Medical Care and Treatment, 2) Surgical Procedure, and 3) Childbirth. Patients answer seven questions related to care and treatment. This can be found at: http://www.myhealthfinder.com/hospital_care/Quality_Reports/Patient_Survey/March%202003/picker_introduction_winter1.htm.
- Additional facility characteristics.
 - One short-term suggestion is to use the American Hospital Association’s Annual Survey databooks for more detailed information on hospital departments and service offerings.
 - A longer term solution would be to identify data sources on environmental factors.
 - Incorporate information learned from the MHCC’s patient safety initiatives, such as which hospitals have a computerized prescription order entry system for doctors to reduce medication errors.
 - Comparison of nurse to patient ratio for nursing unit and intensive care unit.

- Include the average hospital charge for each code-based condition, noting that this represents what a hospital charges and not what they receive in actual payments.
- Expanded quality measures, such as stroke, obstetrics and pediatric care.

Additional Functionality

- Offer an internal site search.
- Offer a drop-down or open search box to search by medical condition.
- Allow users to sort the sideways bar chart (all hospitals) in ascending or descending order.
- Support user selection of a subset of hospitals for comparison purposes graphically or in tabular form.

Recommendations for Nursing Home Guide

Refinements to the Home Page

- Simplify language on the home page and make text more succinct.
- Locate “More About this Guide” in a prominent location.
- Structure the home page so that there is a clear left-side menu with the most important sections of the site, e.g., Searches, Consumer Checklist, FAQs, Contact Us.
- Create more meaningful subsections that facilitate users’ ability to navigate the Guide, e.g., “How to Use this Guide” section with detailed instructions and key educational objectives, or “Other Resources about Nursing Homes” with popular tools as drop down subcategories (i.e., “How to pay for a nursing home,” “A Consumer’s Nursing Home Checklist,” “Patient Bill of Rights”).
- Relocate sections of less importance (i.e., Letter from the Chairman, Legal Disclaimer).
- Create a site map and add a link to the new site map on the home page. (A proposed site map is provided in *Appendix F*.)
- Re-label menu headings so they are more intuitive.
- Consider adding a “How to Contact the Local Ombudsman” section.
- Consider placing the Advanced Search feature on the home page as it is currently buried in the facility search section.

Modifications to the Facility Search Output

- To improve site navigability, use color and contrast to make facility name headings and subsections more pronounced.
- To improve understanding, simplify clinical terms used on this section of the site.

Modifications to the FAQs

- Simplify language used, where possible.

Modifications to Facility Characteristics

- Perform a quality review of the data for inaccuracies.
- Consider updating data more frequently, if possible.

Modifications to Resident Characteristics

- Present percentage of all residents with dementia for a particular facility, then give the breakdown by severity.

Modifications to the Quality Indicators

- Make indicators more “clickable.” Most users did not automatically move their cursor over the indicators to read the explanations provided.
- Consider replacing the circle rating system with another system that users will more naturally interpret relative performance (e.g., star rating system; check plus, check, check minus system).
- Consider alternatives to the current composite table which was misunderstood by most users. Respondents desired to see all of the quality subcategories listed in one place and to be able to see the results of multiple selected facilities on the same page.
- Replace “incidence” and “prevalence” with lay persons language.
- Replace the sideways, stacked bar chart with a more simplified graphic that supports comparison of individual facilities.
- Link the quality indicators with the quality measures. Quality measures are currently buried on the site and users had difficulty distinguishing them from the quality indicators.

Modifications to Deficiency Reports

- Improve accessibility of the summary. Users often missed the link to view the complete summary of the deficiencies cited among all Maryland facilities.
- Explain the different dates of reports.
- Consider reporting trend data.
- Consider updating data more frequently, if possible.

Enhancements to Printer-friendly Report

- Many consumers reported that while they might spend time exploring the information on the site, they would likely print information to examine it more closely. Therefore, sections of the Guide should allow printer-friendly outputs that consistently display main headings, such as facility name(s), date update, and symbol legends.

Additional Content

The most frequently requested areas of new content included:

- Staffing Information.

- Respondents reported that staffing was a main factor in assessing the quality of nursing homes and desired more detailed information in the Guide.
- The most commonly requested information was staff turnover, the ratio of direct care providers to residents, and staff hours of care per resident.
- Cost Information.
 - Offer a breakdown of the percentage of primary payment source by facility and present facilities' private pay rates, including rates charged for a single room and shared room by level of care, as of the last day of reporting period. For example, The Guide to Retirement Living Nursing Home Locator tool lists daily cost range for each facility (www.retirement-living.com/listing.asp?lid=278)
- Services.
 - Provide a more comprehensive listing of services offered (e.g., therapy, nutrition, psychiatric, social, rehabilitation and recreational, substance abuse programs, and specialized pain management programs).
 - Identify which services are offered to residents onsite and/or offsite (e.g., in-house respiratory, in-house dialysis).
- Deficiency Reporting.
 - Provide more detail about the registered complaints beyond state inspection data and the extent to which these problems were or were not being resolved. This information provides helpful information of performance between state inspections. For example, on HealthGrades' Complaint Investigation reporting, users are shown violations from complaints and informed to "proceed with caution when a nursing home has a much higher number of violations from complaint investigations when compared to the state average...repeating violations indicate a pattern of unresolved problems." HealthGrades combines the outcomes from both state inspections and complaint investigations and counts the number of times the same violation occurred. Next, HealthGrades determines the nursing homes' "ability to correct problems" based on the average times violations are repeated.¹ (See *Exhibit 7*)

Exhibit 7: Example of HealthGrades' Compliant Investigation Reporting

What was the total number and types of repeating problems for these nursing homes?

Name	Total Number of Repeating Problems	List of Types of Repeating Problems
Anytown Healthcare Center	2	Food Services, Staffing Qualifications
Anytown Manor	6	Accidents, Pressure Sores, Quality of Life, Resident Rights, Resident Status, Staffing Qualifications
Anytown Nursing Home	0	No recurring problems
Hospice of Anytown	4	Accidents, Medical Record, Patient Abuse, Patient Assessments
Main Street Nursing Home	0	No recurring problems

¹ www.healthgrades.com/consumer/index.cfm?

What is the ability of these nursing homes to correct problems?

Name	History
Main Street Nursing Home	Highly likely to correct problem
Any town Healthcare Center	Somewhat likely to correct problem
Any town Nursing Home	Somewhat likely to correct problem
Hospice of Any town	Somewhat unlikely to correct problem
Any town Manor	Highly unlikely to correct problem

- It would also be beneficial to include a state average comparison of overall number of deficiencies and for each type of deficiency. Users could be educated about how to use this information when exploring nursing home options and also in case of quality assurance of a loved one currently residing in a nursing home.
 - Present easy-to-read deficiency information based on recognizable categories in additional area including food issues, bedsores, resident abuse and environmental deficiencies.
 - Add listing of F-tag quality indicators as an additional educational resource. An example of this can be found on the Iowa Department of Inspections and Appeals Web site at www.dia-hfd.state.ia.us/reportcareids/qidetail.asp?indID=1.
- Resident Satisfaction.
 - Modify an existing validated resident satisfaction tool to implement statewide.
 - Report statewide survey results in key quality of life and quality of care areas, based on resident-centered values.
 - Describe data collection and reporting, emphasizing the use of a standardized tool by an entity independent of the nursing facilities.
- Quality Measures. Explore the use of additional quality indicators, e.g., wound outcomes.
- Cultural Competence.
 - Include languages spoken by staff.
 - Include racial/ethnic mix of residents.
 - Include cultural competency results (related to honoring residents' cultural preferences, language spoken by staff, staff-resident interaction, resident-resident interaction, dining options, interacting with the family, etc.).

Additional Functionality

- Improve the accessibility and function of the facility search.
 - Place *clinical services* ahead of other items on the input screen so users can access this field more easily.
 - Allow users to sort advanced search results. Discharge planners wanted to be able to sort results by geography and may desire other sorting options in the future based on any additions to the advanced search criteria.

- Support user selection of a subset of nursing homes for comparison purposes graphically or in tabular form.

V. RECOMMENDATIONS FOR OUTREACH STRATEGIES

The MHCC is interested in increasing the visibility and utilization of the Hospital and Nursing Home Guides among several target audiences. To develop recommendations for effective outreach strategies for each population, the project team analyzed information from previous hits collected by the MHCC as well as responses by study participants to several questions focusing on outreach. These questions included:

- How previous users of the Guide found out about the Guide;
- What search terms users would use on the Internet;
- Suggestions on how to inform others (consumers, physicians and discharge planners) about the Guide; and
- How users would access the Guide from the MHCC's home page.

The following describes key findings and recommendations for outreach strategies based on these research questions.

How many and what type of hits do each of the online Guides receive?

In examining previous hits to the Web site, the Nursing Home Guide receives several hits per month (approximately 1500-2000), especially from discharge planners. However, the Hospital Guide receives fewer hits. Therefore, while MHCC should strive to increase the utilization of the Nursing Home Guide, a greater focus on promoting the use of the Hospital Guide by physicians and consumers is recommended.

How did previous users of the Guide find out about the Guide?

In total, 13 of the 52 interviewees had heard of the Guides prior to their participation in the study. These interviewees learned of the Guides through referrals by health care professionals and local health care officials, newspaper articles, and advertisements and pamphlets at hospitals and senior centers.² This finding suggests that outreach efforts should focus on trusted resources for health information.

What search terms would be used in accessing the Guide on the Internet?

Many of the consumers were accustomed to entering specific URL addresses in their Web browsers as opposed to using a search engine to find web sites. It is recommended that any advertisement of the online Guides include a prominent display of the URL. The advertised URL for each Guide should be user-friendly and easy to remember (e.g. www.marylandhospitalguide.com). Respondents reported that the current URLs for the Guides are too lengthy and complicated to place in advertisements and for people to remember.

² Of the 13 interviewees who had previously *heard* about the Guides, four had actually used the Guides. Previous users included three physicians (Hospital Guide) and one consumer (Nursing Home Guide).

Respondents who did have experience using search terms to locate information on the Internet reported a variety of terms that they would likely use to access the Hospital Guide and the Nursing Home Guide (See *Exhibit 8*). Some users may attempt very broad searches, such as “nursing homes” and “long term care.” More experienced Internet users would likely include “Maryland” as a search term. Several consumers reported that they would use their zip code.

Exhibit 8: Common Search Terms Used to Seek Out Guides on Internet

Hospital Guide	Nursing Home Guide
<p>Consumers:</p> <p>“Maryland hospital quality/performance”</p> <p>“Maryland hospital quality indicators”</p> <p>“Maryland hospital comparison information”</p> <p>“Maryland performance guide”</p> <p>“Maryland hospitals”</p> <p>“Maryland health care/health services”</p> <p>“Maryland hospital evaluation”</p> <p>“Maryland hospitals survey”</p> <p>“Maryland Health Care Commission”</p> <p>Physicians:</p> <p>“Maryland hospital quality/performance/outcomes”</p> <p>“Hospital quality indicators”</p> <p>“Hospital comparison information”</p> <p>“Quality of care”</p>	<p>Consumers:</p> <p>“nursing homes”</p> <p>“long term care”</p> <p>“Maryland Department of Health”</p> <p>“Maryland health care information”</p> <p>“nursing homes in Maryland”</p> <p>“nursing homes” and enter zip code</p> <p>“nursing homes” and enter county name</p> <p>Discharge Planners:</p> <p>“Maryland nursing home quality”</p> <p>“Maryland nursing care/long term care”</p> <p>“Maryland rehabilitation”</p> <p>“nursing home information”</p> <p>“nursing home compare”</p> <p>“nursing home inspections/incidents”</p> <p>“Maryland Department of Health”</p>

What suggestions do you have on how to inform peers (consumers, physicians and discharge planners) about the Guide?

Hospital Guide

- **Consumers:**
 - Provide brochures about the Guide in physician offices/waiting rooms, senior centers, and public libraries.
 - Place advertisements on TV, radio, in local newspapers, and through other local media outlets. Specific suggestions mentioned by respondents include the *Baltimore Magazine*, *Washington Post Health Insert*, *Washington Consumer Checklist Series*, *Spectrum Magazine*, and other local or health magazines.
 - Place advertisements through local community organizations such as Maryland AAAs and through Community Resource Advocate offices.
 - Advertise the Guide on the Pro Aging listserv.

- **Physicians:**

- Conduct in-services at hospitals that include a short demonstration of the site and dissemination of materials.
- Send information about the Guide with hospital patient safety committees.
- Place advertisements through local medical organizations. Specific suggestions included the Maryland Medical Society, Med-Chi e-mail listserv, and the Maryland Chapter of ACEP, Maryland Hospital Association, and JCAHO.
- Place advertisements in medical journals such as the Maryland Medical Journal, Emergency Medicine, Board of Physician Quality Assurance publications, and Update PriMed.
- Mail brochures to local physician groups. Include magnets or pens with the Hospital Guide's URL on them.
- Advertise at local medical conferences including ACEP meetings and ASMIA meetings. Potentially exhibit the Guide with person manning booth in conjunction with CMS or AHRQ.

Nursing Home Guide

- **Consumers:**

- Provide brochures regarding the Guide at senior centers, physician offices (i.e., internal medicine, geriatricians, and orthopedic surgeons)/waiting rooms, and public libraries.
- Provide slip sheets to hospital discharge units to include as component of discharge packet sent home prior to placement. Could provide an instructional page on how to use the Guide, especially geared toward older persons and their caregivers.
- Place advertisements on cable TV or radio spot, senior center bulletins, in local newspapers, and through other local media outlets. Specific suggestions included the Baltimore Magazine, Washington Post Health Insert, Washington Consumer Checklist Series, Retirement Guide Magazine, Senior Resource Guide, Spectrum Magazine, Annapolis Capitol Newspaper, the Capitol Gazette in Glen Burnie, Sun Paper and other local/health magazines.
- Place advertisements through and provide slip sheets to the Department on Aging and local AAAs (e.g. Pro Aging list serv), Commission for People With Disabilities, Department of Social Services, and advocacy offices, such as local ombudsman and Keep Voices for Quality Care, a long term care citizens advocacy group in Maryland (statewide, volunteer, nonprofit organization which has a help line and gives callers advice when they are in the situation of having to place someone in a nursing home).
- Provide slip sheets to faith-based organization contacts, such as church secretaries.
- Send out information during tax filing period, perhaps as mail out with income tax information.

- **Discharge Planners:**

- Mail brochures regarding the Nursing Home Guide to hospital case management/social work departments. Include magnets or pens with the Nursing Home Guide's URL on them.
- Conduct in-services at hospitals that include a short demonstration of the site and dissemination of materials. Several discharge planners mentioned that they have weekly staff meetings.
- Place advertisements through local social work organizations and journals such as the Maryland Chapter of NASW (National Association of Social Workers) and *Social Work Today*.

An attention grabber is advertising or sending mailings when new content is being launched on the Guides. MHCC should also consider publicizing at the time of local public health events, major health plan enrollment periods, and other newsworthy events.

How would users access the Guide from the MHCC's home page?

The majority of respondents had difficulty locating links to the Guides on the home page. Many interviewees did not recognize or understand the term "Report Card" and did not associate this term with the Guides. They thought the term did not adequately capture the value in some of the more basic, descriptive information about the facility and residents found in the Guides. As one discharge planner remarked, "if I were to get something that said nursing home report card in my mailbox, I wouldn't look at it." In addition, it was not logical for some users to look under "Consumer Information" to find the Guides. Respondents offered suggestions to broaden the terms, such as "Comparison Guide to Maryland Nursing Homes."

Based on The Lewin Group's prior experience with Web site marketing, MHCC may want to consider ways to increase the number of partner organizations linking to the site. MHCC may want to examine major search engines (e.g., Google, Yahoo!, Excite, etc.) to determine how to increase the likelihood that users will find the Guides. In some cases, this may necessitate registering the site with various Web site search engines and providing search terms appropriate to the Guides. In other cases, it may involve altering the coding of the Guides.

VI. CONCLUSIONS AND IMPLICATIONS FOR THE COMMISSION AND OTHER STAKEHOLDERS

Based on the interview findings, the Guides serve a valuable purpose in assisting users with making informed health care decisions. The 52 in-depth, one-on-one interviews yielded rich information about how to make the Guides useful, understandable and usable for consumers and health care professionals. Furthermore, the findings support several activities of the MHCC already underway in the areas of quality measurement and public reporting of performance data.

The interviews revealed that users value comparative health care information that is presented in a comprehensive manner, uses simple terminology, and allows for efficient research when making comparisons. Interestingly, both health professionals and consumers desire quality data to be presented as individual scores and as a composite rather than a composite only. In

response, the MHCC should consider developing screens containing more basic composites with optional drill down information that is more detailed but still understandable by the lay person. Regardless of design, users want to be able to simultaneously view comparative data across multiple facilities, with a printer-friendly option. The findings also demonstrate users' preference for trend data to assess performance over time.

While respondents reported that the Guides were useful, most felt that facility choice is constrained by location, insurance and physician affiliation. The responses suggest that many users may not use the Guides for the purposes of selecting a facility but rather for monitoring or educational purposes. These findings suggest there is much value in expanding the educational components of the Guides, including a fundamental education to the public about the relationship between clinical quality measures and overall health care quality. In addition to consumers, the findings showed that some health care professionals did not understand the relationship between quality measures and overall quality. More attention to the presentation of health care quality, the expected levels of performance, and the rationale for chosen quality indicators or measures is required to make the Guides more understandable and useful for both consumers and health care providers.

Also, consumers and discharge planners were confused by the distinction between quality measures and quality indicators in the Nursing Home Guide. While most respondents for the Nursing Home Guide were unfamiliar with CMS' Nursing Home Compare, it would be advisable to educate users on how the MHCC Guide enhances what CMS provides. This will be the case for the hospital side once CMS' site is more developed.

Most consumers and health care professionals perceived the Guides to be accurate but questioned the credibility of the data when results conflicted with what they expected based on reputation (i.e., if results showed a highly respected institution as a "poorer performer" or a institution with known quality problems to be a better performer). Similarly, providers were concerned that consumers would misinterpret quality information without adequate knowledge of health care disparities. They questioned the use of length of stay and readmission rates as indicators of quality.

In response to these issues, it may be necessary to educate users about how hospitals/nursing homes offer different services and how hospitals/nursing homes may serve different patient populations, and identify facilities that are a "center of excellence" in a particular area. The findings related to providers' concern with the use of length of stay and readmission rates as indicators of quality support current activities of the MHCC to monitor the correlation between utilization and quality. Despite some reservations about the timeliness and credibility of the data as indicators of quality, health care professionals will likely recommend the Guides to colleagues and those patients whom they perceive capable of conducting independent research.

With respect to the Hospital Guide, evaluation findings suggest that unless the health care provider is in a position of administrative authority, it is unlikely that the provider would use the data to influence practice patterns. However, those providers who have administrative responsibilities, such as serving on a hospital quality assurance committee, are likely to use the Guides to affect service delivery. As a few providers cautioned, it will be important that Maryland hospitals use the data to improve performance appropriately in order to achieve positive health outcomes.

Furthermore, the findings suggest that users would value both clinical and non-clinical indicators of quality in the Guides. Regarding the clinical components of the Hospital Guide, users desire a more comprehensive picture of the patient care. Provider and consumer recommendations support the MHCC's efforts to monitor and incorporate measures of core care processes for patients hospitalized with acute myocardial infarction (AMI) and quality indicators for pregnancy and related conditions. In addition, several respondents desired information about the quality of pediatric care, noting that parents would be a significant user group of the Guide.

With respect to non-clinical factors of quality, respondents of both Guides desired more information related to a facility's physical and social environment, such as staff relationships with patients/residents, the median time from arrival to being seen in the emergency department, etc. In general, respondents favored the inclusion of patient/resident satisfaction data in the Guides in line with the MHCC's participation with the HCAHPS pilot project on the hospital side and contracted work to research and implement a standardized tool on the nursing home side. The findings suggest that to make satisfaction data trustworthy, it will be important to inform the public of the data collection and reporting methods used to obtain satisfaction data, emphasizing that the MHCC is an entity independent of Maryland hospitals/nursing homes. Otherwise, users would likely perceive the data to be biased and assume that individual facilities dictate how and which patients/residents report satisfaction.

Respondents provided specific feedback on how best to increase the visibility and use of the Guides. In general, users had little to no experience using comparative data to inform health care decisions and most consumers and health professionals did not recognize or understand the term "Report Card." Most users were unfamiliar with the MHCC which suggests that users would not know to go to the MHCC Web site to seek comparative health care information and that there is great value in increasing public outreach pertaining to the role and activities of the MHCC in conjunction with marketing the Guides. Also, it would be effective to support advertising efforts with a series of targeted in-services with health professionals during their regularly scheduled staff meetings to showcase the Guides and to also offer demonstrations at state-level and local social service agencies. Lastly, the project team's recruitment efforts for this study yielded interest on the part of non-English speaking consumers, suggesting it would be valuable to explore developing non-English versions of the Guides.

Appendix A

Recruitment Sources

The 52 participants were informed of MHCC’s evaluation of the Guides through different means. The following table summarizes how the final participants were informed of this evaluation.

Exhibit A-1: How Participants Heard About MHCC Evaluation

	Consumers (Hospital)	Consumers (Nursing Home)	Physicians	Discharge Planners	Total
MHCC Web Site	0	2	1	0	3
Direct Telephone Call from Lewin	0	1	1	4	6
Announcement*	1	2	6	3	12
A Colleague	1	0	3	1	5
A Friend	9	2	1	0	12
Other**	5	9	0	0	14

* For example, announcements placed through the following organizations were identified by participants: Med-Chi e-mail list serv, ProAging e-mail list serv, Medical Matrix Physician Staffing, and ACEP. In addition, discharge planners heard about the study through announcements placed in their discharge planning/social work department.

** For example, respondents reported hearing about the study through their co-worker, spouse, and Community Resource Advocate.

In addition to placing a “pop-up” box announcement on the Hospital Guide and Nursing Home Guide web sites, The Lewin Group recruited participants for this evaluation by calling and placing announcements through numerous hospitals and community organizations. Appendix Exhibit A – 2 on the following page lists all the hospitals and organizations contacted.

Exhibit A-2: Recruitment Sources

Hospital Guide	Nursing Home Guide
<p>Doctors Community Hospital*</p> <p>George Washington University Medical Center*</p> <p>Harbor Hospital Center</p> <p>Holy Cross Hospital*</p> <p>Prince George's Hospital Center*</p> <p>The Johns Hopkins Hospital*</p> <p>ACEP, Maryland/DC Chapter *</p> <p>Association for Women in Computing, DC/Baltimore Chapters</p> <p>Centro de la Comunidad, Baltimore</p> <p>Education Based Latino Outreach, Baltimore</p> <p>General Motors Baltimore Plant*</p> <p>Hispanic Apostolate, Baltimore</p> <p>Korean Resource Center, Baltimore</p> <p>Maryland Medical Society Med-Chi List Serv*</p> <p>Medical Matrix*</p> <p>Prince George's Community College</p> <p>YMCA, Western Family Branch</p>	<p>Bon Secours Hospital</p> <p>Doctors Community Hospital*</p> <p>Good Samaritan Hospital*</p> <p>Harbor Hospital Center</p> <p>Holy Cross Hospital*</p> <p>Maryland General Hospital</p> <p>Mercy Medical Center*</p> <p>Montgomery General Hospital</p> <p>Prince George's Hospital Center*</p> <p>Shady Grove Adventist Hospital</p> <p>Southern Maryland Hospital Center</p> <p>St. Agnes Hospital</p> <p>Suburban Hospital</p> <p>The Johns Hopkins Hospital*</p> <p>Washington Adventist Hospital</p> <p>AAA Pro-Aging List Serv*</p> <p>AARP, Maryland Chapter</p> <p>A.I.M. Action in Maturity</p> <p>Baltimore City Commission on Aging and Retirement Education</p> <p>Baltimore County Department of Aging, Area Agency on Aging</p> <p>Carroll County Bureau of Aging</p> <p>Catholic Charities of Baltimore, SeniorLife Services</p> <p>Charlestown Retirement Community</p> <p>Edward Meyerberg Senior Center</p> <p>Forest Park Senior Center</p> <p>Greenbelt Community Center</p> <p>Greenbelt Community Resource Advocate*</p> <p>Harford Center for Senior Citizens</p> <p>Howard County Office on Aging, Area Agency on Aging</p> <p>Jewish Community Center of Greater Baltimore</p> <p>Jewish Council of the Aging of Greater Washington</p> <p>Johns Hopkins Bayview Medical Center, ElderPlus Outreach Coordinator's Office</p> <p>Knights of Columbus, Baltimore/Greenbelt Chapters</p> <p>O'Malley Senior Center*</p> <p>Prince George's County Department of Family Services</p> <p>Senior Network of North Baltimore</p> <p>United Seniors of Maryland</p> <p>Waxter Center for Senior Citizens</p>

* denotes that hospital or organization yielded respondents for the study.

Appendix B

Telephone Scripts For Recruitment

I. CONSUMER SCRIPT

FULL NAME:	TELEPHONE NO.:
DATE OF CALL:	LOCATION: Baltimore / Washington, DC
CIRCLE TARGET GROUP: Consumer	
PREVIOUS USER OF GUIDE? Yes / No <i>IF Yes, Hospital / Nursing Home</i>	

A. Reason for Contacting Candidate

If Previous User:

“Good [morning/afternoon]. My name is [Name] and I am calling from The Lewin Group on behalf of the Maryland Health Care Commission, a state agency that helps to improve the quality of care for Maryland residents. Recently, you visited the Commission’s [Hospital/Nursing Home] Online Performance Evaluation Guide on their Web site and indicated that you would be interested in participating in a study regarding the usefulness of this guide. I am calling today to follow up with you regarding the possibility of your participation in this effort.”

If Non-User:

“Good [morning/afternoon]. My name is [Name] and I am calling from The Lewin Group on behalf of the Maryland Health Care Commission, a state agency that helps to improve the quality of care for Maryland residents. I am calling today to let you know that the Commission has released a guide on its Web site about the quality performance of [hospitals/nursing homes] and is seeking feedback from consumers like yourself about the usefulness of the guide. The Commission is providing a small stipend and reimbursement for travel expenses for individuals to participate in an informal, in-person interview.

Are you familiar with the Commission’s [Hospital/Nursing Home] Online Performance Evaluation Guide?

- *If NO: “This guide was developed as a resource to assist consumers and health care professionals in making informative health care decisions. Among other things, the guide contains information to help compare [hospitals/nursing home] based on selection of quality measures.”*
- *If YES: “When was the last time you visited the site?”*

The reason why I am contacting you is because the Commission is conducting an evaluation of the guide and I would like to invite you to participate in an interview in the near future to get your perspective on its usefulness.”

B. Purpose of Interview

“The purpose of the interview is to find out : 1) how useful the information is contained in the Guide; 2) how understandable the information is; 3) how easy or difficult it is to use; 4) how the guide can be improved; and 5) how to get more people to use the site. “

C. Roles of Participant & Expected Benefits

“The interview would be in-person and involve using the Web-based guide on a computer and answering questions related to the usefulness of the guide. Participants do not need to have much experience using computers and there will be assistance available to help participants with any questions about using the computer. The interview is expected to last approximately 45 minutes to one hour. The Commission has reserved a few facility sites around the Baltimore and Washington, DC metropolitan areas. The interview will be audiotaped and there may be members of the Commission observing the interview.

By participating in this interview, you will have an opportunity to make an invaluable contribution toward improving the quality of health services information and toward helping others make more informed decisions about health care. And in appreciation of your time, the Commission will provide a \$25 stipend and reimburse you for your travel expenses to and from the interview location. In addition, light refreshments will be served during the interview.”

D. Availability / Interview Location Preference

“Would You be interested in helping the Commission by participating in an interview?”

Yes/No

- IF YES, Continue
- IF NO, “Thank you for your time. If you change your mind and decide you would like to participate, please feel free to contact me at [Lewin Phone Number].”

“What location would be most convenient for you?”

- Baltimore – 817 Maiden Choice Lane
- Washington, DC area – 7253-C Hanover Parkway, Greenbelt MD OR Downtown DC – 900 17th Street (near Farragut West Metro)”

“We have set aside several dates for the interviews. Is this a good time to consider potential dates for the interview?”

- IF YES, “what date and time would work best for you from among the following... “ then, “What is your second choice of date and time”

“For now, can you please set aside your preferred date and time for the interview? In the next week, we will be mailing you a letter confirming your participation.”

- IF NO, “if this is not a good time for you to consider potential dates, we can follow up with you later this week.”

“May I confirm your contact information?”

- FULL NAME:
- TELEPHONE NO.:
- MAILING ADDRESS:
- E-MAIL ADDRESS:

“Do you have any questions?”

“Thank you very much for your time. If you have any questions or need to re-schedule your interview time, please feel free to contact me at [Lewin Phone Number].”

II. HEALTHCARE PROFESSIONAL SCRIPT

FULL NAME:	TELEPHONE NO.:
DATE OF CALL:	LOCATION: Baltimore / Washington, DC
CIRCLE TARGET GROUP: Discharge Planner / Physician	
IF PHYSICIAN: Primary Care / Emergency Department	
PREVIOUS USER OF GUIDE? Yes / No <i>IF Yes, Hospital / Nursing Home</i>	

A. Reason For Contacting Candidate

If Previous User:

“Good [morning/afternoon]. My name is [Name] and I am calling from The Lewin Group on behalf of the Maryland Health Care Commission. Recently, you visited the Commission’s [Hospital/Nursing Home] Online Performance Evaluation Guide on their Web site and indicated that you would be interested in participating in a study regarding the usefulness of this guide. I am calling today to follow up with you regarding the possibility of your participation in this effort.”

If Non-User:

“Good [morning/afternoon]. My name is [Name] and I am calling from The Lewin Group on behalf of the Maryland Health Care Commission, a state agency that helps to improve the quality of health care. I am calling today to let you know that the Commission has released a guide on its Web site about the quality performance of [hospitals/nursing homes] and is seeking feedback from health care professionals like yourself about the usefulness of the guide. The Commission is providing a small stipend and reimbursement for travel expenses for individuals to participate in an informal, in-person interview. Are you familiar with the Commission’s [Hospital/Nursing Home] Online Performance Evaluation Guide?

- *If NO: “This guide was developed as a resource to assist consumers and health care professionals in making informative health care decisions. Among other things, the guide contains information to help compare [hospitals/nursing home] based on selection of quality measures.”*
- *If YES: “When was the last time you visited the site?”*

The reason why I am contacting you is because the Commission is conducting an evaluation of the guide and I would like to invite you to participate in an interview in the near future to get your perspective on its usefulness.”

B. Purpose of Interview

“The purpose of the interview is to find out : 1) how useful the information is contained in the Guide; 2) how understandable the information is; 3) how easy or difficult it is to navigate; 4) your preferences about how the guide can be improved; and 5) your opinion about how to get other professionals and consumers to use the site. ”

C. Roles of Participant & Expected Benefits

“The interview would be in-person and involve using the Web-based guide on a computer and answering questions related to the usefulness of the guide. Participants do not need to have much experience using computers and there will be assistance available to help participants with any questions about using the computer. The interview is expected to last approximately 45 minutes to one hour. The Commission has reserved a few facility sites around the Baltimore and Washington, DC metropolitan areas. The interview will be audiotaped and there may be members of the Commission observing the interview.

By participating in this interview, you will have an opportunity to make an invaluable contribution toward improving the quality of health services information and toward helping others make more informed decisions about health care. Also, the Commission will offer a small stipend in the amount of [\$150/\$50] to support you for your time, and will reimburse you for your travel expenses to and from the interview location.”

D. Availability / Interview Location Preference

We are conducting the interviews at [DC/Baltimore] area location. However, if your schedule does not permit traveling to this location, we could potentially conduct the interview at your [office/hospital].

“Would you be interested in helping the Commission by participating in an interview?”

Yes/No

- *IF YES*, Continue
- *IF NO*, “Thank you for your time. If you change your mind and decide you would like to participate, please feel free to contact me at [Lewin Phone Number].”

“What location would be most convenient for you?”

- Baltimore – 817 Maiden Choice Lane
- Washington, DC area – 7253-C Hanover Parkway, Greenbelt MD OR Downtown DC – 900 17th Street (near Farragut West Metro)”
- OFFER ONLY AS LAST RESORT (if provider states that they can’t come to any of the other sites): If office/hospital – “we will need to have Internet access as part of the interview; can your office / hospital accommodate that?”

“We have set aside several dates for the interviews. Is this a good time to consider potential dates for the interview?”

- IF YES, “what date and time would work best for you from among the following... “ then, “What is your second choice of date and time”

“For now, can you please set aside your preferred date and time for the interview? In the next week, we will be mailing you a letter to confirm your participation.”

- IF NO, “if this is not a good time for you to consider potential dates, we can follow up with you later this week.”

“May I confirm your contact information?”

- FULL NAME:
- TELEPHONE NO./BEEPER:
- MAILING ADDRESS:
- E-MAIL ADDRESS:

“Do you have any questions?”

“Thank you very much for your time. If you have any questions or need to re-schedule your interview time, please feel free to contact me at [Lewin Phone Number].”

III. ANTICIPATED QUESTIONS

Lewin's recruiter will be prepared to answer consumers' and health professionals' questions, including the following:

- Can someone pick me up/take me to the interview?

We are unable to provide transportation service but can reimburse for travel expense to and from the interview location.

- May I bring someone with me?

Yes, but we would ask that this person observe the interview only and not take part in the actual interview.

- How do I find this guide/what is the Web site?

*The guide can be found on the Maryland Health Care Commission Web site, located at:
<http://www.mhcc.state.md.us/>*

- Where did you get my name from?
[provide source from database]

- How will this information be used?

Based on the interviews, The Lewin Group will write a report for the Commission and its stakeholders outlining the findings about user preferences and suggestions for improvement. The Commission, in turn, will use this information to make improvements to the guide and prioritize ways to increase the utilization of the guide. Your personal information will not be shared with any outside source and no personally identifying information will be included in the report.

- When will I get reimbursed?

After your expense form is submitted, you will be reimbursed in approximately one week

- Will I have to do more interviews?

No.

- Can you send me the questions ahead of time?

The interview will be interactive and so some questions that will be asked will depend on the response provided to another question.. We would be happy to share our objectives of the interview with you to give you a better idea of the types of issues we would like to discuss. Just so you know, there will be no right or wrong answers. We simply want your feedback about the usefulness of the information in making health care decisions and your suggestions for improvement.

Appendix C

Profile of Interview Participants

Exhibit C-1: Demographic and Other Characteristics of Interview Participants

	Hospital Guide Participants		Nursing Home Guide Participants	
	Hospital Guide Consumers (n=16)	Physicians (n=12)	Nursing Home Guide Consumers (n=16)	Discharge Planners (n=8)
Gender				
Male	7	7	4	0
Female	9	5	12	8
Age				
18 - 39 years	2	4	2	4
40 - 59 years	7	6	3	4
60 - 74 years	6	2	11	0
75 and older	1	0	0	0
Race/Ethnicity				
African American	8	1	4	2
American Indian	0	0	0	0
Asian	0	3	0	0
Hispanic	0	1	0	0
White	8	7	12	6
Other	0	0	0	0
How Became Informed of Study*				
Maryland Health Care Commission Web Site	0	1	2	0
Telephone Call	0	1	1	4
Announcement through Organizations	1	6	2	3
A Colleague	1	3	0	1
A Friend	9	1	2	0
Other	5	0	9	0
Internet Use Background				
Have access to the Internet	13	12	13	8
Never use the Internet	4	0	3	0
Use Internet once a month	1	1	1	0
Use Internet once a week	1	1	2	3
Use Internet several times a week	3	1	5	1
Use Internet every day	7	9	5	4
Use Internet to look up health information	9	10	12	8
Previous Exposure to MHCC / Hospital and Nursing Home Guides (Before the Study)				
Had visited the general MHCC web site	2	5	3	2
Had heard of the MHCC Guide	1	5	4	3
Had used the MHCC Guide	0	3	1	0

* Refer to Appendix A - Recruitment Sources, for more information.

Exhibit C-2: Hospital and Nursing Home Consumer Experience

Hospital Experiences		N=16
Been in a Hospital over the Past Year		4
Cared for Someone who was in a Hospital over the Past Year		8

Nursing Home Experiences		N=16
Been in a Nursing Home over the Past Year		2
Cared for Someone who was in a Nursing Home over the Past Year		1

Exhibit C-3: Discharge Planner Professional Characteristics

Discharge Planning Background		N=8
Staffed at a Hospital-Based SNF		2
Responsibilities include Home Health, Hospice, and Long Term Care		6
Length of Discharge Planning Experience		
Less than 1 year		1
1 - 3 years		2
4 - 6 years		2
7 + years		3

**Exhibit C-4: Hospitals Represented By
Discharge Planner Participants**

Hospitals
Doctors Community Hospital
Good Samaritan Hospital
Holy Cross Hospital
Mercy Medical Center
Prince George's Hospital Center
The Johns Hopkins Hospital

Exhibit C-5: Physician Professional Characteristics

Physician Type	N=12
Primary Care	6
Emergency Department	6
Length of Experience	
Less than 1 year	0
1 - 3 years	3
4 - 7 years	3
8 - 14 years	2
15 + years	4

Exhibit C-6: List of Hospitals To Which Physician Participants Admit

Hospitals
Doctors Community Hospital
George Washington University Hospital
Greater Baltimore Medical Center
Harbor Hospital Center
Holy Cross Hospital
Howard County Hospital
Maryland General Hospital
NWHC
Prince George's Hospital Center
Sinai Hospital
St. Agnes Hospital
Union Memorial Hospital
Walter Reed Army Medical Center

Appendix D

Interview Discussion Guides for Each Target Group

CONSUMER DISCUSSION GUIDE

TABLE OF CONTENTS

I.	INTRODUCTION (Estimated Time: 10 minutes: 5 min. greeting; 5 min. questions)	2
II.	PROVIDER SELECTION & USAGE (Estimated Time: 5 minutes)	2
III.	UNDERSTANDING (Estimated Time: 10 minutes)	4
IV.	USABILITY (Estimated Time: 10 minutes)	5
V.	USEFULNESS & PREFERENCES (Estimated Time: 15 minutes)	6
VI.	OUTREACH STRATEGIES (Estimated Time: 5 minutes)	8

CONSUMER DISCUSSION GUIDE

I. INTRODUCTION (Estimated Time: 10 minutes: 5 min. greeting; 5 min. questions)

Interviewees will complete demographic and Internet use information on a sheet provided to them as they sign-in.

Moderator: Introductions and overview

- a. Moderator introduces herself/himself, state a staff member from The Lewin Group is present to observe, take notes and provide technical assistance, discusses observation by others outside the room, and describe the use of audiotapes and transcripts
- b. Review purpose of the interview and how information will be used

"The purpose of the interview is to find out : 1) how useful the information is contained in the Guide; 2) how understandable the information is; 3) how easy or difficult it is to use; 4) how the guide can be improved; and 5) how to get more people to use the site.

Based on the interviews, The Lewin Group will write a report for the Commission and its stakeholders outlining the findings about user preferences and suggestions for improvement. The Commission, in turn, will use this information to make improvements to the guide and prioritize ways to increase the utilization of the guide. Your personal information will not be shared with any outside source and no personally identifying information will be included in the report."

- c. Review format of interview and expectations of respondent (reminder that there are no right or wrong answers)
- d. Remind respondent that responses will be aggregated; there will be no name attribution
- e. Ask if respondent has any questions before getting started

II. PROVIDER SELECTION & USAGE (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess how, when and why the respondent may use the evaluation guide.

A. RATIONALE FOR USING THE GUIDE

1. Have you ever visited the general Maryland Health Care Commission Web site?
 - a. Yes
 - b. NoIf yes, when and for what purpose?

CONSUMER DISCUSSION GUIDE

2. Have you ever **heard** of the Maryland [Hospital/Nursing Home] Online Performance Guide?
 - a. Yes
 - b. No

If yes, how did you find out about it (e.g., media advertisement, surfing the Internet, from a relative/friend, from a health care professional, other)?

3. Have you **used** the Maryland [Hospital/Nursing Home] Online Performance Guide before? (*If yes, continue; If no, skip to Q.8*)

QUESTIONS FOR PREVIOUS USERS

4. What prompted you to use/seek out information on this online guide?
 - a. What types of information have you sought using this guide?
 - b. Under what circumstances did you use the guide?

Hospital probe: prior to being admitted for planned surgery, desired information post event, prior to physician visit, post physician visit

Nursing home probe: prior to placing a love one/ deciding on rehab facility, quality or resident right concern

5. What top two sources of information did you use when seeking [this information]?

Hospital probe: physician, health care or hospital association, health plan, other health care professional, relative/friend, Web information, newspaper, magazine, other

Nursing home probe: discharge planner/social worker, nursing home or long-term care association, relative/friend, Ombudsman, area agency on aging/care manager, CMS' Nursing Home Compare site, other Web information, newspaper, magazine, other

6. What would you say is your most trusted resource(s) for information about the quality of [hospitals/nursing homes] in your community?

Moderator: use previous probes

7. How often have you accessed this online guide in the past year?

QUESTIONS FOR NEW USERS

8. What would you say is your most trusted resource(s) for information about the quality of [hospitals/nursing homes] in your community?

Moderator: use previous probes

CONSUMER DISCUSSION GUIDE

9. What types of information would you hope to find in an evaluation guide of area [hospitals/nursing homes]?

III. UNDERSTANDING (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to gauge how the respondent understands and interprets the purpose, content, and source of information contained in the guide.

Ask the respondent to take a few minutes to explore the site on his/her own. Observe and record what pages and content the respondent chooses to seek and any navigability issues. Make sure user searches different areas of site, including quality information.

A. PURPOSE OF THE SITE

1. What do you perceive to be the primary purpose of this online guide?

B. UNDERSTANDING OF SITE CONTENT

1. Have you ever used information to compare health providers before?
 - a. Yes
 - b. No
2. Please find the following information and tell me how you would interpret its meaning from the guide? *Moderator: choose one of the following and allow the respondent time to search for the meaning.*

For Hospital:

- a. Risk-adjusted readmissions
OR
- b. For Greater Baltimore Medical Center, Heart Failure - Giving the recommended medication, Hospital Performance - 89%
OR
- c. For Washington Adventist Hospital, Pneumonia - Giving antibiotics in a timely fashion, Hospital Performance - 82%; State Average - 88%
OR
- d. Risk-adjusted length of stay

For Nursing Home:

- a. For Cherry Lane Nursing Center, Prevalence of little or no activity (black-filled circle symbol)
OR
- b. For Riverview Nursing Center, Prevalence of falls (half-filled circle symbol)

CONSUMER DISCUSSION GUIDE

OR

- c. Deficiency Report, Substandard Quality of Care Deficiency

OR

- d. For Allegany County Nursing & Rehabilitation Center, Resident Characteristics, Percent Ambulatory - 11%; State Average - 12%

3. **Hospital Guide only.**

Moderator: search for hospital and view quality measures. Ask respondent: In viewing the quality information for [congestive heart failure], do you prefer seeing this information as several individual measures as shown on this screen or would you prefer seeing this information as a composite measure (i.e., one measure that combines these individual measures)?

- 4. Where do the information and data found on this Web site come from?
- 5. How recent are these data? From what year are they?
- 6. What would you do if you had a question about this item?

IV. USABILITY (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess users' navigability of the site, including logic, design and functionality

Observer: Record the following: 1) if respondent found the information (Yes/No); 2) the path used to find information; and 3) the time it took to find information ____min, ____seconds

A. SITE ORGANIZATION AND FUNCTIONALITY

- 1. Show me how to find information about:

Moderator: Have consumers talk their way through two of the following searches. Observe.

For Hospital Guide (choose 2):

- a. If Greater Baltimore Medical Center was a teaching hospital
- b. Quality of care information for certain medical conditions: For Anne Arundel Medical Center, the average length of stay related to diabetes
- c. A comparison of quality measures of all Maryland hospitals pertaining to "Heart Failure - Giving the recommended medication"
- d. If you want guidance on what questions to ask before choosing a hospital
- e. If you want additional information about hospitals – resources that the Commission has listed on the site

CONSUMER DISCUSSION GUIDE

For Nursing Home Guide (choose 2):

- a. A list of nursing homes and addresses in Prince George's county
 - b. If Cherry Lane Nursing Center offers specialized dementia/ Alzheimer's care, in comparison to the statewide percentage of nursing homes
 - c. The number and type of deficiencies from Cherry Lane Nursing Center's last inspection
 - d. If you want guidance on how to choose a nursing home
 - e. If you want additional information about nursing home care – resources that the Commission has listed on the site
2. How easy or difficult is it to locate information you are looking for on this site? (*Provide the respondent with these choices: very difficult, somewhat difficult, somewhat easy, very easy. Allow for elaboration.*)
 3. How would you improve the organization of this site?

B. DESIGN

1. What do you think of the overall “look and feel” of this site: well-designed, fair design, or poor design ?

Probe: color and contrast, amount of text on the screen, size of text, font, icons, etc.
2. How would you improve the overall “look and feel” of this site?

V. USEFULNESS & PREFERENCES (Estimated Time: 15 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand the usefulness of the guide in making decisions and what information to include, exclude or expand

A. TRUSTED SOURCES OF COMPARATIVE HEALTH CARE DATA

1. What top three characteristics do you consider when making a decision about the quality of [hospitals/nursing homes]?
2. Have you ever sought out other kinds of comparative health provider information?
 - a. Yes
 - b. No

If yes, from where?

CONSUMER DISCUSSION GUIDE

3. **Nursing Home respondent - If recently searching for nursing homes,** were you or a family member advised to visit the nursing home **and** use this guide as a tool to evaluate nursing home performance?
 - a. Yes
 - b. No
4. How does the information on this site compare to that found on CMS' Nursing Home Compare site? *Probe: what information is the same, what information is different, does the information on this site support/conflict with CMS?*
5. How much do you trust the information on this site? (*very much, somewhat, or not at all*)? What would make this more trustworthy?
6. What do you think this online guide offers that can't be found elsewhere?

B. PERCEPTIONS OF USEFULNESS

1. **ASK PREVIOUS USERS:**
What decisions have you made by using this [hospital/nursing home] guide in the past?

ASK NEW USERS:
What types of decisions could you see yourself making by using this [hospital/nursing home] guide?
2. On a scale of 1 to 5, with 5 being the most useful and 1 being the least useful, how would you rate the usefulness of this guide to you?
3. When/under what circumstances would you find the information in this guide the most useful?
4. What do you think is the most useful section of this guide? Why?
5. What do you think is the least useful section of this guide? Why?
6. Of the sections or content that you have searched, which sections or specific terms on this site are difficult to understand or confusing?
7. What important information on [hospital/nursing home] quality do you think is missing from this site? Where would you try to seek this [missing information]?

CONSUMER DISCUSSION GUIDE

8. Do you think you would access this online guide in the future?
 - a. Yes
 - b. No

If No, why not?

9. Would you recommend this guide to a friend?
 - a. Yes
 - b. No

If No, why not?

VI. OUTREACH STRATEGIES (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand potential ways users would learn about the site to increase utilization of the guide

Note: Several questions regarding outreach appear in earlier sections of this interview

A. PREFERENCES / SUGGESTIONS FOR OUTREACH STRATEGIES

1. What suggestions do you have for how other consumers can be informed about this site? Where do you think the Commission should advertise this [hospital/nursing home] guide?
2. If looking for resources on choosing [hospitals/nursing homes] on the Web, what search terms would you use?
3. How would you find this guide from the MHCC home page?

END

Moderator: Conclude interview and thank respondent for his/her participation.

PHYSICIAN DISCUSSION GUIDE

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PHYSICIAN DISCUSSION GUIDE

I. INTRODUCTION (Estimated Time: 10 minutes: 5 min. greeting; 5 min. questions)

Interviewees will complete demographic and Internet use information on a sheet provided to them as they sign-in.

Moderator: Introductions and overview

- a. Moderator introduces herself/himself, state a staff member from The Lewin Group is present to observe, take notes and provide technical assistance, discusses observation by others outside the room, and describe the use of audiotapes and transcripts
- b. Review purpose of the interview and how information will be used

"The purpose of the interview is to find out : 1) how useful the information is contained in the Guide; 2) how understandable the information is; 3) how easy or difficult it is to use; 4) how the guide can be improved; and 5) how to get more people to use the site.

Based on the interviews, The Lewin Group will write a report for the Commission and its stakeholders outlining the findings about user preferences and suggestions for improvement. The Commission, in turn, will use this information to make improvements to the guide and prioritize ways to increase the utilization of the guide. Your personal information will not be shared with any outside source and no personally identifying information will be included in the report."

- c. Review format of interview and expectations of respondent (reminder that there are no right or wrong answers)
- d. Remind respondent that responses will be aggregated; there will be no name attribution
- e. Ask if respondent has any questions before getting started

II. PROVIDER SELECTION & USAGE (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess how, when and why the respondent may use the evaluation guide.

A. RATIONALE FOR USING THE GUIDE

1. Have you ever visited the general Maryland Health Care Commission Web site?
 - a. Yes
 - b. NoIf yes, when and for what purpose?
2. Have you ever **heard** of the Maryland Hospital Online Performance Guide?
 - a. Yes
 - b. No

PHYSICIAN DISCUSSION GUIDE

If yes, how did you find out about it (e.g., media advertisement, surfing the Internet, from another health care professional, from a patient, other)?

3. **Have you used the Maryland Hospital Online Performance Guide before?**
(If yes, continue; If no, skip to Q.8)

QUESTIONS FOR PREVIOUS USERS

4. What prompted you to use/seek out information on this online guide?

- a. What types of information have you sought using this guide?
- b. Under what circumstances did you use the guide?

Primary Care probe: prior to referring patients for planned admission or surgery, desired information post event, seeking hospital quality performance information, change practice pattern

Emergency Services probe: selecting place of employment, prior to referring patients for planned admission or surgery, desired information post event, seeking hospital quality performance information, change practice pattern

5. What top two sources of information did you use when seeking [this information]?

Probe: other physicians, health care or hospital association, health plan, other health care professional, trade journal, Web information, newspaper, magazine, other

6. What would you say is your most trusted resource(s) for information about the quality of hospitals in your community?

Moderator: use previous probes

7. How often have you accessed this online guide in the past year?

QUESTIONS FOR NEW USERS

8. What would you say is your most trusted resource(s) for information about the quality of hospitals in your community? *Moderator: use previous probes*

9. From a physician's perspective, what types of information would you hope to find in an evaluation guide of area hospitals?

PHYSICIAN DISCUSSION GUIDE

III. UNDERSTANDING (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to gauge how the respondent understands and interprets the purpose, content, and source of information contained in the guide.

Ask the respondent to take a few minutes to explore the site on his/her own. Observe and record what pages and content the respondent chooses to seek and any navigability issues. Make sure user looks at both quality and utilization information.

A. PURPOSE OF THE SITE

1. What do you perceive to be the primary purpose of this online guide?

B. UNDERSTANDING OF SITE CONTENT

1. Have you ever used information to compare hospital quality before?
 - a. Yes
 - b. No
2. Please find the following information and tell me how you would interpret its meaning from this guide?
 - a. Risk-adjusted readmissions

- b. For Greater Baltimore Medical Center, Heart Failure - Giving the recommended medication, Hospital Performance – 89%

Moderator: make sure physician sees graphs that show hospital comparisons (either by clicking on “H” symbol by facility listing or at the top under Quality Indicators)

- c. In your opinion, are these credible metrics of hospital performance?
If not, then why?
3. *Moderator: search for hospital and view quality measures. Ask respondent:* In viewing the quality information for [congestive heart failure], do you prefer seeing this information as several individual measures as shown on this screen or would you prefer seeing this information as a composite measure (i.e., one measure that combines these individual measures)?
 4. What are the source(s) for the data in the guide?
 5. How recent are these data? From what year are they?

PHYSICIAN DISCUSSION GUIDE

6. What would you do if you had a question about this item?

IV. USABILITY (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess users' navigability of the site, including logic, design and functionality

Observer: Record the following: 1) if respondent found the information (Yes/No); 2) the path used to find information; and 3) the time it took to find information ____min, ____seconds

A. SITE ORGANIZATION AND FUNCTIONALITY

1. Show me how to find information about:
Moderator: Have physicians talk their way through two of the following searches pertaining to their affiliated hospitals. Observe.
 - a. Quality of care information for certain medical conditions: For [your hospital], the average length of stay related to diabetes
 - b. **Primary Care Physicians:** [your hospital] performance related to Congestive Heart Failure and how this compares to other hospitals.
 - c. **ER Physicians:** [your hospital] performance related to Pneumonia and how this compares to other hospitals.
2. How easy or difficult is it to locate information you are looking for on this site?
(Provide the respondent with these choices: very difficult, somewhat difficult, somewhat easy, very easy. Allow for elaboration.)
3. How would you improve the organization of this site?

B. DESIGN

1. What do you think of the overall “look and feel” of this site? (Provide the respondent with these choices: well-designed, fair design, poor design). *Probe: color and contrast, amount of text on the screen, size of text, font, icons, etc.*
2. How would you improve the overall “look and feel” of this site?

V. USEFULNESS & PREFERENCES (Estimated Time: 15 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand the usefulness of the guide in making decisions and what information to include, exclude or expand

A. TRUSTED SOURCES OF PERFORMANCE EVALUATION DATA

1. What indicators of quality matter the most to you in evaluating the performance of hospitals?

PHYSICIAN DISCUSSION GUIDE

2. Have you ever sought out other kinds of hospital performance information?
 - a. Yes
 - b. NoIf yes, from where?
3. **Primary Care Physicians:** What sources of information do you use when referring patients to be admitted to the hospital?
4. Would you advise your patients to use this guide as a tool to evaluate hospital performance? Why?
 - a. Definitely
 - b. Probably
 - c. Not likely
 - d. No
5. Did the information on this site support or conflict with information from other sources?
6. How much do you trust the information on this site (*very much, a great deal or not at all*)? What would make this more trustworthy?
7. What do you think this online guide offers that can't be found elsewhere?

B. PERCEPTIONS OF USEFULNESS

PREVIOUS USERS:

1. What decisions have you made by using this hospital guide in the past?

Primary Care Physician Probe: present to quality assurance/improvement team, educate other physicians, educate patients, patient referrals

ER Physician Probe: present to quality assurance/improvement team, educate other physicians, educate patients, patient referrals
2. **Ask Primary Care:** Did using the quality information in this online guide influence any of your past patient referral decisions? If yes, how?
 - a. Yes
 - b. No

PHYSICIAN DISCUSSION GUIDE

Ask ER: Did you use the quality information in this online guide to affect your hospital emergency department's performance/ make improvements?

- a. Yes
- b. No

NEW USERS:

1. What types of decisions could you see yourself making by using this hospital guide? How would you use the data in the guide in your practice?

Primary Care Physician Probe: present to quality assurance/improvement team, educate other physicians, educate patients, patient referrals

ER Physician Probe: present to quality assurance/improvement team, educate other physicians, educate patients, patient referrals

2. **Ask Primary Care Physicians:** Do you think that you would use the quality information in this online guide in the future to make patient referral decisions? Why or why not?

- a. Yes
- b. No

Ask Emergency Services Physicians: *Ask new users:* Do you think that the quality information in this guide can be used to influence how care is delivered in your hospital's emergency department? Why or why not?

- a. Yes
- b. No

Probe: Give example – if a physician's hospital's performance in performing the recommended heart function test for heart failure is below the state average - what does it mean to the physician? How would these data be interpreted and used?

- 3. On a scale of 1 to 5, with 5 being the most useful and 1 being the least useful, how would you rate the usefulness of this guide to you?
- 4. What do you think is the most useful section of this guide? Why?
- 5. What do you think is the least useful section of this guide? Why?
- 6. Of the sections or content that you have searched, which sections or specific terms on this site are difficult to understand?

PHYSICIAN DISCUSSION GUIDE

7. What important information on hospital performance do you think is missing from this site? Where would you try to seek this [missing information]?
8. Do you think you would access this online guide in the future?
 - a. Yes
 - b. No
9. Would you recommend this guide to your colleagues? If no, why not?
 - a. Yes
 - b. No
10. Would you advise your patients to use this guide? If no, why not?
 - a. Yes
 - b. No

VI. OUTREACH STRATEGIES (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand potential ways users would learn about the site to increase utilization of the guide

Note: Several questions regarding outreach appear in earlier sections of this interview

A. PREFERENCES / SUGGESTIONS FOR OUTREACH STRATEGIES

1. Where else would you look to find related information about hospitals in your area?
2. What suggestions do you have for how other physicians can be informed about this site? Where do you think the Commission should advertise this hospital guide?
 - a. At which professional conferences would you recommend this site be advertised?
3. If looking for resources on hospital performance/comparisons on the Web, what search terms would you use?
4. How would you find this guide from the MHCC home page?

END

Moderator: Conclude interview and thank respondent for his/her participation.

DISCHARGE PLANNER DISCUSSION GUIDE

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DISCHARGE PLANNER DISCUSSION GUIDE

I. INTRODUCTION (Estimated Time: 10 minutes: 5 min. greeting; 5 min. questions)

Interviewees will complete demographic and Internet use information on a sheet provided to them as they sign-in.

Moderator: Introductions and overview

- a. Moderator introduces herself/himself, state a staff member from The Lewin Group is present to observe, take notes and provide technical assistance, discusses observation by others outside the room, and describe the use of audiotapes and transcripts
- b. Review purpose of the interview and how information will be used

"The purpose of the interview is to find out : 1) how useful the information is contained in the Guide; 2) how understandable the information is; 3) how easy or difficult it is to use; 4) how the guide can be improved; and 5) how to get more people to use the site.

Based on the interviews, The Lewin Group will write a report for the Commission and its stakeholders outlining the findings about user preferences and suggestions for improvement. The Commission, in turn, will use this information to make improvements to the guide and prioritize ways to increase the utilization of the guide. Your personal information will not be shared with any outside source and no personally identifying information will be included in the report."

- c. Review format of interview and expectations of respondent (reminder that there are no right or wrong answers)
- d. Remind respondent that responses will be aggregated; there will be no name attribution
- e. Ask if respondent has any questions before getting started

II. PROVIDER SELECTION & USAGE (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess how, when and why the respondent may use the evaluation guide.

A. RATIONALE FOR USING THE GUIDE

1. Have you ever visited the general Maryland Health Care Commission Web site?
 - a. Yes
 - b. NoIf yes, when and for what purpose?
2. Have you ever **heard** of the Maryland Nursing Home Online Performance Guide?
 - a. Yes
 - b. No

DISCHARGE PLANNER DISCUSSION GUIDE

If yes, how did you find out about it (e.g., media advertisement, surfing the Internet, from another health care professional, from a patient/caregiver, other)?

3. Have you **used** the Maryland Nursing Home Online Performance Guide before?
 - a. Yes
 - b. No

(If yes, continue; If no, skip to Q.8)

QUESTIONS FOR PREVIOUS USERS

4. What first prompted you to use/seek out the information on this online guide?
 - a. What types of information have you sought using this guide?
 - b. Under what other circumstances did you (or do you) use the guide?

Probe: prior to admitting or placing a patient, quality or resident right concern, own research

5. In general, what top two sources of information did you use when seeking [this information]?

Probe: other discharge planners/social workers, nursing home or long-term care association, Nursing Home Admissions/Social Work, Ombudsman, CMS' Nursing Home Compare site, trade journal, other Web information, newspaper, magazine, other

6. What would you say is your most trusted resource(s) for information about the quality of nursing homes in your community? *Moderator: use previous probes*
7. How often have you accessed this online guide in the past year?

QUESTIONS FOR NEW USERS

8. What would you say is your most trusted resource(s) for information about the quality of nursing homes in your community? *Moderator: use previous probes*
9. What types of information would you hope to find in an evaluation guide of area nursing homes?

DISCHARGE PLANNER DISCUSSION GUIDE

III. UNDERSTANDING (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to gauge how the respondent understands and interprets the purpose, content, and source of information contained in the guide.

Ask the respondent to take a few minutes to explore the site on his/her own. Observe and record what pages and content the respondent chooses to seek and any navigability issues. Make sure user searches quality information in addition to other types of information.

A. PURPOSE OF THE SITE

1. What do you perceive to be the primary purpose of this guide?

B. UNDERSTANDING OF SITE CONTENT

1. Have you ever used information to compare nursing home quality before?
 - a. Yes
 - b. No
2. Please find the following information and tell me how you would interpret its meaning from the guide? *Moderator: Choose one of the following and allow the respondent time to search for the meaning.*

For Nursing Home:

- a. For Cherry Lane Nursing Center, Prevalence of little or no activity (black-filled circle symbol)
OR
 - b. Explain the "Range of State Rates" graph for "Clinical" category
OR
 - c. Explain "prevalence of symptoms affecting others (high risk)"
OR
 - d. For Allegany County Nursing & Rehabilitation Center, Resident Characteristics, Percent Ambulatory - 11%; State Average - 12%
3. What is the source of the "Quality Indicators" data found on this Web site? How do these differ from the source of "Quality Measures" found on the site?
 4. How recent are these data? From what year are they?
 5. What would you do if you had a question about an item?

DISCHARGE PLANNER DISCUSSION GUIDE

IV. USABILITY (Estimated Time: 10 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to assess users' navigability of the site, including logic, design and functionality

If user has not used the Advanced Search option during the interview, show user this feature.

Observer: Record the following: 1) if respondent found the information (Yes/No); 2) the path used to find information; and 3) the time it took to find information ____min, ____seconds

A. SITE ORGANIZATION AND FUNCTIONALITY

1. Show me how to find information about:

Moderator: Have discharge planners talk their way through two of the following searches pertaining to nursing homes to which they tend to discharge to. Observe.

- a. A list of nursing homes and addresses in [relevant county]
 - b. If Cherry Lane Nursing Center offers specialized dementia/ Alzheimer's care, in comparison to the statewide percentage of nursing homes
 - c. The number and type of deficiencies from [nursing home] last inspection
 - d. If you want additional information about nursing home care – resources that the Commission has listed on the site
2. How easy or difficult is it to locate information you are looking for on this site? *(Provide the respondent with these choices: very difficult, somewhat difficult, somewhat easy, very easy. Allow for elaboration.)*
 - a. How useful is the advanced search feature? *(very useful, somewhat useful, not very useful, not useful)* How could it be more useful?
 3. How would you improve the organization of this site?

B. DESIGN

1. What do you think of the overall “look and feel” of this site: *well-designed, fair design, poor design?*

Probe: color and contrast, amount of text on the screen, size of text, font, icons, etc.
2. How would you improve the overall “look and feel” of this site?

DISCHARGE PLANNER DISCUSSION GUIDE

V. USEFULNESS & PREFERENCES (Estimated Time: 15 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand the usefulness of the guide in making decisions and what information to include, exclude or expand

A. TRUSTED SOURCES OF COMPARATIVE HEALTH CARE DATA

1. What indicators of quality matter the most to you in making comparisons about nursing homes?
2. What sources do you use when referring patients to nursing homes?
Probe: Other discharge planners/social workers, nursing home or long-term care association, Ombudsman, area agency on aging/care manager, CMS' Nursing Home Compare site, trade journal, other Web information, newspaper, magazine, other
3. Do you advise your patients to visit the nursing home **and** use this guide as a tool to evaluate nursing home performance?
 - a. Yes
 - b. No
4. How does the information on this site compare to that found on CMS' Nursing Home Compare site? *Probe: what information is the same, what information is different, does the information on this site support/conflict with CMS?*
5. How much do you trust the information on this site (*very much, somewhat, or not at all*)? What would make this more trustworthy?
6. What do you think this online guide offers that can't be found on the CMS site? That can't be found elsewhere?

B. PERCEPTIONS OF USEFULNESS

1. ASK PREVIOUS USERS:

What decisions have you made by using this nursing home guide in the past?

Probe: patient referrals, educating patients and their families

ASK NEW USERS:

DISCHARGE PLANNER DISCUSSION GUIDE

What types of decisions could you see yourself making by using this nursing home guide?

Probe: patient referrals, educating patients and their families

2. On a scale of 1 to 5, with 5 being the most useful and 1 being the least useful, how would you rate the usefulness of this guide to you?
3. Do you think the information in this guide makes it easier to do your job? If yes, how so?
4. What do you think is the most useful section of this guide? Why?
5. What do you think is the least useful section of this guide? Why?
6. Of the sections or content that you have searched, which sections or specific terms on this site are difficult to understand or confusing?
7. What important information on nursing home quality do you think is missing from this site? Where would you try to seek this [missing information]?
8. Do you think you would access this online guide in the future?
 - a. Yes
 - b. NoIf No, why not?
9. Would you recommend this guide to your colleagues?
 - a. Yes
 - b. NoIf No, why not?
10. Would you advise patients and their families to use this guide?
 - a. Yes
 - b. NoIf No, why not?

DISCHARGE PLANNER DISCUSSION GUIDE

VI. OUTREACH STRATEGIES (Estimated Time: 5 minutes)

Moderator: Introduce the purpose of the questions in this section of the interview: to understand potential ways users would learn about the site to increase utilization of the guide

A. PREFERENCES / SUGGESTIONS FOR OUTREACH STRATEGIES

1. What suggestions do you have for how other discharge planners can be informed about this site? Where do you think the Commission should advertise this nursing home guide?
2. If looking for resources on researching nursing homes on the Web, what search terms would you use?
3. How would you find this guide from the MHCC home page?

END

Moderator: Conclude interview and thank respondent for his/her participation.

Appendix E

“Quick Fixes”

Suggested “Quick Fixes” Applicable to Both Hospital Guide and Nursing Home Guide:

- Make MHCC logo graphic at the top of the page a link to return to MHCC web site.
- Keep the name of a selected facility “stationary” at the top of the screen when moving to different pages.
- Add “Back to Top” link at the end of each sub-section or frame.
- Have the cursor change to a “hand” symbol whenever it is placed on information that is clickable.
- Be consistent in usage and order of symbols with high and low score rankings. In all legends, consistently order symbols from best to worst performance (i.e. black circle, half-circle, white circle).
- For the Glossary, have an alphabet at the top of the section so that users don’t need to scroll through all the items. After each item, have a *Back to Top* button.
- List all FAQs (Frequently Asked Questions) as links at the top of the FAQ page. This will enable users to click on and jump to the question and answer that they are interested in viewing.

Suggested “Quick Fixes” Applicable to Hospital Guide:

- Spell out all acronyms and abbreviations in each location. Many interviewees responded that it would be helpful to spell out all acronyms and abbreviations in parentheses each place the acronym/abbreviation is used. Specifically:
 - FAQ – Frequently Asked Questions
 - HSCRC – Health Services Cost Review Commission
 - DRG – Diagnosis-Related Group
- Add information on “severity adjustment” to FAQ section.
- Insert all Hospital Guide data sources and data dates as footnotes below each table. It is more convenient for the user to have this information when looking at the data, and not have to click into the “Technical Information” section to find it.
- Fix the link to Sample Report #4. on the following page:
<http://hospitalguide.mhcc.state.md.us/Misc/start.htm>
- Fix the “Home” link on the main page of the Hospital Guide.
- Enable rollover highlighting on the following “facility page” headers: “Facility Characteristics”, “Utilization Information”, and “Quality Measures”.

Suggested “Quick Fixes” Applicable to Nursing Home Guide:

- Spell out all acronyms and abbreviations. Many interviewees responded that it would be helpful to spell out all acronyms and abbreviations in parentheses each place the acronym/abbreviation is used. Specifically:
 - FAQ – Frequently Asked Questions

➤ MDS – Minimum Data Set

- For the “Facility Search” by county map, make the arrow turn into a hand (or highlight the counties) as the user scrolls over each county so that the user knows that these counties are clickable.
- For the “Facility Search,” add a drop down menu as another way to search by county.
- Consider adding a button on the output of a facility search called “Search Another Facility” so users can more easily get back to the main facility search page after having selected a nursing home.
- Under Facility Characteristics, consistently hotlink email addresses and Web site URLs.
- Bold the data sources and data dates for both Quality Indicators and Quality Measures.
- Correct the following text in introduction on first page that comes up when you select a nursing home: "For more information about the facility, its residents, its quality indicators or its latest state inspection results click on the respective area ABOVE." Change ABOVE to BELOW.
- Enable rollover highlighting on the following “facility page” headers: “Facility Characteristics”, “Resident Characteristics”, “Quality Indicators”, and “Deficiency Report”.
- In Quality Indicators, the symbol legend should appear as top, middle and bottom to improve logic and to be consistent with the chart. It is currently listed as top 20%, bottom 10%, all others.
- In the Quality Indicators section, fix break in the word "percentage" in the pop-up definition box for "Prevalence of Indwelling Catheters".
- In the “Deficiency Report” sub-page, disable the rollover highlighting in the table headings which are not links. These table headings (and some table entries) are not links and it confuses users when they are highlighted when scrolled over.
- In the “Deficiency Report” sub-page, fix all cut-off deficiency descriptions in the inspection tables. The text of the longer deficiency descriptions in the second column of the inspection columns are cut-off; need to increase the height of some of the rows to fit in all of the text of the descriptions. Some examples:
 - “Facility Failed to Keep Each Resident’s Personal and Medical Records Private and”
 - “Facility Failed to Protect Residents from Mistreatment, Neglect and/or Theft of”
 - “Facility Failed to Ensure That Services Provided to Residents Meet Professional”
- The “Printer-friendly Version” report should have legend information so data can be interpreted once printed off.
- Consider using cross-hatching in color graphics for printing purposes.

Appendix F

Site Map and Proposed Site Map

The Web sites of both the hospital and nursing home Guides do not currently include site maps. It is recommended to add site maps to orient users to the content of the Guides. The first set of site maps in this appendix reflect the existing site structures, using the same terms that appear on the sites. The second set of site maps are a starting point for a proposed structure that uses more simplified language. However, it does not incorporate specific recommendations about additional content outlined in the report. It is advisable to modify the site maps once any changes have been made to the sites.

Hospital Guide Site Map – Existing

Home

- Getting Started
 - Philosophy
 - Sample Reports
- Overview of Important Health Care Information
- Facility Search (also its own page)
- Medical Conditions Search (also its own page)
- Resources (also its own page)
- Overview of Maryland Regulatory System for Hospital Oversight
- Paying for Hospital Services
- What to Do If You Have a Complaint
- Information to Discuss with Doctor or Surgeon
 - Consumer checklist for selecting a hospital
 - Tips for talking to your doctor
 - AHRQ Patient Safety Tips
 - AHRQ Questions to Ask Your Doctor Before You have Surgery

Facility Search

- Search engine by hospital name, by county
- Options By Hospital
 - Facility Characteristics
 - Utilization Information
 - By Diagnostic Related Groups, Volume, Adjusted Length of Stay and Readmissions
 - Quality Measures
 - Pneumonia
 - Congestive Heart Failure (CHF)

Medical Condition Search

- Generates Medical Conditions Utilization Reports for All Maryland Hospitals
- Generates Quality Measures Reports for All Maryland Hospitals

Quality Information Search

- Same as above. Generates Medical Conditions Utilization Reports for All Maryland Hospitals
- Same as above. Generates Quality Measures Reports for All Maryland Hospitals

Resources

- Links to Web sites of import

Letter from Chairman**FAQs****Contact Us****Technical Information**

- Utilization Information
 - Data source used for analyses
 - Selecting cases to include in data reporting
 - Selecting DRGs to include in the Hospital Performance Evaluation Guide
 - Calculating hospital volume
 - Calculating length of stay
 - Calculating readmission rates
 - Rating hospitals on readmission rates
 - Risk adjustment methodology
- Quality Measures Information:
 - Congestive Heart Failure (CHF)
 - Pneumonia
 - Technical Description

Consumer Checklist

- Questions to ask before choosing a hospital

Patient Bill of Rights**Legal Disclaimer****Glossary**

Nursing Home Guide Site Map - Existing

Home

- More About This Site (includes a description of Continuing Care Retirement Communities)
- How to Choose a Facility (also its own page called Consumer Checklist)
- Facility Search (also its own page)
- Resources (also its own page)
- How to Pay for a Nursing Home

Facility Search

- Search engine by facility name, by specific zip code, by county
- Options by Facility
 - Facility Characteristics
 - Resident Characteristics
 - Quality Indicators
 - Clinical
 - Psychosocial
 - Medication
 - Functional
 - Deficiency Report

Consumer Checklist

- List of steps on how to choose a facility and links to resources and other pages on the site

Resources

- Links to Web sites of import

Letter from Chairman

FAQs

Contact Us

Technical Information

Patient Bill of Rights

Legal Disclaimer

Glossary

Hospital Guide Site Map - Proposed

HOME PAGE

Links at Top of Page:

- **About the MHCC** (make the MHCC graphic logo at top a clickable link to MHCC home page)
- **Home**
- **Contact Us**
- **Site Map**
- **Site Search**

Links down Left-side Menu:

- **About the Hospital Guide** (Formerly “Getting Started with the Hospital Guide”)
 - How to Use the Guide (general description for all users of the purpose of the Guide including making the connection between performance measures and quality and incorporating existing “Overview of Important Health Care Information”, description of how to interpret the information, and the Legal Disclaimer)
 - For Public – highlight features of the Guide that are particularly useful for consumers and describe potential uses of the Guide (e.g., to have better understanding of hospital quality and expectations of care delivery, to research and compare hospitals prior to admission, for purposes of monitoring care, to provide additional resources)
 - For Health Professionals – highlight features of the Guide that are particularly useful for health professionals and describe potential uses of the Guide (e.g., to assist in making patient referrals, to help educate patients, to assess own hospital’s performance and inform quality assurance efforts)
 - Sample Reports
 - Letter from the Chairmen
- **About Data Sources** (Formerly “Technical Information”)
- **Search and Compare Hospitals Now**
 - Search by Hospital (Formerly “Facility Search”)
 - Search by Medical Condition (Formerly “Medical Conditions Search”)
 - Search by Quality Information (Formerly “Quality Information Search”)
- **Resources about Hospitals** (Formerly “Resources”)
 - Consumer Checklist for Choosing a Hospital (Formerly “Consumer Checklist”)

- Information to Discuss with a Doctor or Surgeon
 - Tips for Talking to Your Doctor
 - AHRQ Patient Safety Tips
 - AHRQ Questions to Ask Your Doctor Before You have Surgery
- Links to Web Sites of Import
- **Paying for Hospital Services** *(add subcategories as payment information gets more robust and identify how user can find related information in the Guide)*
- **Regulatory Information about Hospitals** *(identify how user can find related information in the Guide)*
 - Overview of Maryland Regulatory System for Hospital Oversight
 - Patient Bill of Rights
 - What to Do If You Have a Complaint
- **Frequently Asked Questions** *(Formerly “FAQs”)*
- **Glossary of Terms** *(Formerly “Glossary”)*

STRUCTURE OF SELECTED PAGES ACCESSED FROM HOME PAGE:

Search By Hospital *(Formerly “Facility Search”)*

- Search engine by hospital name, by county
- Options by hospital
 - Facility Characteristics
 - Utilization Information
 - By Diagnostic Related Groups, Volume, Adjusted Length of Stay and Readmissions
 - Quality Measures
 - Pneumonia
 - Congestive Heart Failure (CHF)

Search By Medical Condition *(Formerly “Medical Conditions Search”)*

- Generates medical conditions utilization reports for all Maryland hospitals

Search By Quality Information *(Formerly “Quality Information Search”)*

- Generates quality measures reports for all Maryland hospitals

About Data Sources *(Formerly “Technical Information”)* Relevant information from these items could be incorporated in the “About the Hospital Guide” category

- Utilization Information
 - Data source used for analyses
 - Selecting cases to include in data reporting
 - Selecting DRGs to include in the Hospital Performance Evaluation Guide
 - Calculating hospital volume
 - Calculating length of stay
 - Calculating readmission rates
 - Rating hospitals on readmission rates
 - Risk adjustment methodology
- Quality Measures Information:
 - Congestive Heart Failure (CHF)
 - Pneumonia
 - Technical Description

Nursing Home Guide Site Map - Proposed

HOME PAGE

Links at Top of Page:

- **About the MHCC** (make the MHCC graphic logo at top a clickable link to MHCC home page)
- **Home**
- **Contact Us**
- **Site Map**
- **Site Search**

Links down Left-side Menu:

- **About the Nursing Home Guide** (Formerly “More About This Guide”)
 - How to Use the Guide (brief description of purpose and uses of the Guide including making the connection between performance measures and quality and incorporating existing “Information to selecting a facility”, description of how to interpret the information, and the Legal Disclaimer)
 - For Public – highlight features of the Guide that are particularly useful for consumers and describe potential uses of the Guide (e.g., to have better understanding of nursing home quality and expectations of care delivery, to research and compare nursing homes prior to admission, for purposes of monitoring care, to provide additional resources)
 - For Health Professionals – highlight features of the Guide that are particularly useful for health professionals and describe potential uses of the Guide (e.g., to assist patients in narrowing searches, to assist in making patient referrals, to help educate patients)
 - Sample Reports
 - Letter from the Chairman
- **About Data Sources** (Formerly “Technical Information”)
- **Search and Compare Nursing Homes Now** (Formerly “Facility Search”)
 - Search by Name, Zip Code, or County
 - Advanced Facility Search (or “Search by Facility Characteristics and Services”)
- **Resources about Nursing Homes**
 - Consumer Checklist for Choosing a Nursing Home (Formerly “How to Choose a Facility” and “Consumer Checklist”)

- Description of Continuing Care Retirement Communities
- Links to Web Sites of Import
- **Paying for Nursing Home Care**
- **Regulatory Information About Nursing Homes** *(description of how nursing facilities are regulated and identify how user can find related information in the Guide)*
 - Overview of Nursing Home Regulations (description of how Maryland nursing facilities are regulated and
 - Patient Bill of Rights
 - How to Contact Your Local Ombudsman
- **Frequently Asked Questions** *(Formerly “FAQs”)*
- **Glossary of Terms** *(Formerly “Glossary”)*

STRUCTURE OF SELECTED PAGES ACCESSED FROM HOME PAGE:

Search and Compare Nursing Homes Now *(Formerly “Facility Search”)*

- Search engine by facility name, by specific zip code, by county
- Advanced Facility Search
- Options by Facility
 - Facility Characteristics
 - Resident Characteristics
 - Quality Information (i.e., indicators and measures, formerly “quality indicators”)
 - Deficiency Report